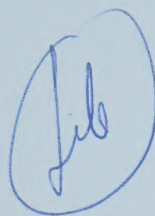


THE GRACE REPORT

1980 Annual Report to Shareholders



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A Word About Style

This year W.R. Grace & Co. has broken with traditional annual report style to improve communications with our shareholders and investors at large. The adoption of a newsmagazine format, we believe, enhances readability and information value of the Grace Annual Report. The following statement by a leading financial relations firm supports this attempt:

"Our professional experience in dealing with over a million shareholders a year leads us to the conclusion that the competitive demands for time permit five minutes per shareholder for reviewing the average corporation's annual report. To bring about full disclosure under these circumstances is a challenge to the creative ability of those who are responsible for the annual report."

Georgeson & Co.

Directors

- George W. Blackwood**, *Vice Chairman and Chief Operating Officer*
Alexander T. Daignault, *Office of the President*
- ³ **Harold A. Eckmann**, *Chairman of the Board and Chief Executive Officer, The Atlantic Companies, insurance*
- ³ **Mark C. Feer**, *Advisory Director, Lehman Brothers Kuhn Loeb Incorporated, investment bankers*
Dr. Friedrich Karl Flick, *General Partner, Friedrich Flick KG, diversified industrial organization*
- ⁴ **Raymond C. Foster**, *Chairman and Chief Executive Officer, Stone & Webster, Incorporated, engineering design, construction and management services*
- ⁴ **George P. Gardner, Jr.**, *Managing Director, Blyth Eastman Paine Webber Incorporated, investment bankers*
- ^{1;2;4} **Klaus Goette**, *General Partner, Friedrich Flick KG, diversified industrial organization*
J. Peter Grace, *President and Chief Executive Officer*
Carl N. Graf, *Executive Vice President and Sector Executive*
- ¹ **John E. Haigney**, *Senior Partner, Ide & Haigney, attorneys*
- ^{2;3} **Paul F. Hellmuth**, *Professional Trustee and Retired Managing Partner, Hale and Dorr, attorneys*
L.L. Jaquier, *Executive Vice President*
George P. Jenkins, *Consultant to W. R. Grace & Co. and Retired Chairman of the Board and Chief Financial Officer, Metropolitan Life Insurance Company*
- ³ **Dr. Werner Kneip**, *Member of the Supervisory Board, Dynamit-Nobel AG, chemical and plastics manufacturer*
Felix E. Larkin, *Chairman*
Harold R. Logan, *Executive Vice President*
- ^{1;2} **Frank E. Mackle, Jr.**, *Chairman of the Board and Chief Executive Officer, The Deltona Corporation, land development and construction*
- ⁵ **Charles W. Miller**, *Professor of Management, Marquette University*
- ^{2;4} **Roger Milliken**, *President, Milliken & Company, textile manufacturers*
- ⁵ **John D. J. Moore**, *Consultant to W. R. Grace & Co. and Former U.S. Ambassador to Ireland*
- ^{1;3} **Cornelius W. Owens**, *Retired Executive Vice President, American Telephone and Telegraph Company*
- ⁵ **Henry G. Parks, Jr.**, *Chairman of the Board, H. G. Parks, Inc., processed foods*
- ¹ **John E. Phipps**, *Private investor*
- ⁴ **William Wood Prince**, *President, F. H. Prince & Co., Inc., investment company*
- ^{1;2;3} **John A. Puelicher**, *Chairman of the Board and President, M & I Marshall & Ilsley Bank*
- ^{1;2;3} **Eben W. Pyne**, *Senior Vice President, Citibank, N. A.*
D. Walter Robbins, Jr., *Executive Vice President and Sector Executive*
Allen S. Rupley, *Advisor to the President and Former Chairman of the Board*
- ^{1;4} **Harold A. Stevens**, *Retired Presiding Justice, Appellate Division, New York Supreme Court*
- ⁵ **David L. Yunich**, *Consultant to W. R. Grace & Co. and Retired Vice Chairman, R. H. Macy & Co., Inc., department stores*
- ¹ Audit Committee
² Salary, Incentive Compensation and Employee Benefits Committee
³ Stock Option Committees
⁴ Nominating Committee
⁵ Committee on Corporate Responsibility

The Numbers in Review

(dollar amounts in millions except per share—1979 and 1978 restated)

For the Year	1980	1979	1978	Percent Change	
				1980/1979	1979/1978
Sales	\$ 6,101.3	\$ 5,297.6	\$ 4,474.4	+ 15%	+ 18%
Income before Taxes	492.4	423.0	331.1	+ 16	+ 28
Income Taxes	208.6	194.2	155.3	+ 7	+ 25
Net Income	283.8	228.8	175.8	+ 24	+ 30
Earnings per Share	6.08	5.01	3.97	+ 21	+ 26
Earnings per Share assuming Full Dilution	5.91	4.79	3.72	+ 23	+ 29
Capital Expenditures	657.4	511.2	308.5	+ 29	+ 66
Research and Development Expenses	45.0	42.4	37.3	+ 6	+ 14
Depreciation, Depletion and Lease Amortization	204.0	169.5	161.5	+ 20	+ 5
Working Capital provided by Operations	562.7	419.6	355.5	+ 34	+ 18
Cash Dividends on Common Stock	101.1	86.9	72.3	+ 16	+ 20
Per Common Share	2.175	1.975	1.85	+ 10	+ 7
Average Common Shares Outstanding	46,579,000	45,530,000	44,076,000	+ 2	+ 3
At Year-End					
Total Assets	\$ 4,364.5	\$ 3,738.9	\$ 3,300.6	+ 17%	+ 13%
Net Properties and Equipment	2,162.7	1,689.9	1,321.2	+ 28	+ 28
Working Capital	584.4	626.5	738.5	- 7	- 15
Long Term Debt	1,115.7	839.8	775.8	+ 33	+ 8
Shareholders' Equity—Common Stock	1,787.3	1,579.8	1,407.1	+ 13	+ 12
Shareholders' Equity—per Common Share (Book Value)	37.98	34.13	31.06	+ 11	+ 10
Cash Dividends—Annual Rate	2.30	2.05	1.90	+ 12	+ 8
Common Shares Outstanding	47,059,553	46,280,751	45,296,838	+ 2	+ 2

A Message to Shareholders *from President J. Peter Grace and Chairman Felix E. Larkin*

The year 1980 was a notable one for W. R. Grace & Co. All-time earnings and sales records were achieved against a backdrop of economic weakness in the United States and Western Europe.

Sales advanced by 15 percent and exceeded \$6 billion for the first time. Net income reached a high of \$283.8 million, an increase of 24 percent over 1979. Earnings per share of \$6.08 were up 21 percent. In recognition of these results, our dividend was increased for the seventh time since 1973. The new indicated annual rate of \$2.30 per share represents an increase of 12.2 percent and is in keeping with our goal of matching or exceeding inflationary trends. A more detailed account of our excellent financial results for 1980 can be found in the article "Sales and Earnings Achieve All-Time Highs" on page four of this Report.

taxes. The Agricultural Chemicals and Natural Resources groups did even better, with AgChem profits more than doubling and Natural Resources ahead by 52 percent. These three lines of business contributed 95 percent of Grace's after-tax operating income in 1980, up from 88 percent the year before. These businesses have shown very satisfactory growth in earnings over the past five years—approximately 15 percent or higher annually.

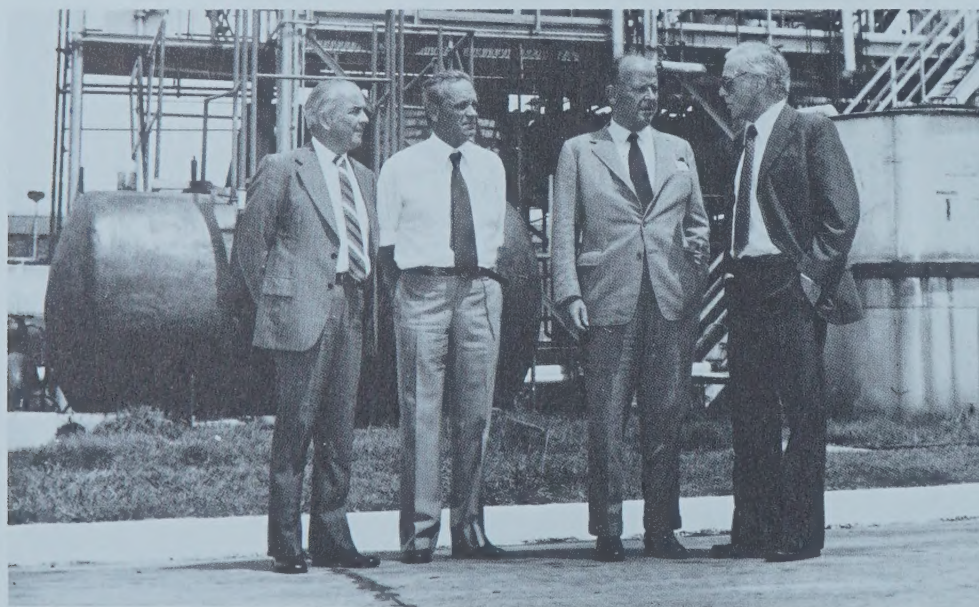
Specialty Chemicals has been Grace's largest and most important business since the 1950s, and consistent year-to-year earnings gains have been the norm throughout that period. Last year was no exception, with operating income after taxes reaching a new high of \$161.6 million (including Chemed). Grace produces and sells a diversified group of chemical products—some 85 principal

enter the fast-growing oil services field. These strategies contributed importantly to our 1980 results. After-tax operating income from Natural Resources in 1980 was \$107.6 million, with broadly diversified oil services contributing more than half of this amount. These earnings compare with \$70.8 million in 1979.

In Agricultural Chemicals, the upward movement of prices for all fertilizer materials—which are just now approaching the levels of 1974/1975—together with higher volume was responsible for profits increasing more than twofold in 1980. Excess cash generated by this business is being used in part to finance an expansion of Grace's phosphate fertilizer capacity. Included in the plan are a new five million ton-a-year joint venture in phosphate rock with International Minerals & Chemical Corporation, a phosphoric acid plant jointly owned with United States Steel Corporation, and a 100 percent Grace-owned diammonium phosphate plant. The new facilities will help meet increasing domestic and export demand for these products.

In consumer activities, Specialty Retailing had a 16 percent increase in operating income after taxes. Following several years of acquisition and internal expansion, 1981 will be a year of consolidation with a lower rate of store openings. Grace has managed to outpace the earnings growth of most U.S. retailers because of the specialty nature of our store formats, a very specific merchandising focus, and concentrated emphasis on favorable price/value relationships for customers.

In February 1981 Grace announced an agreement in principle to sell for cash, over a five-year period, up to a 50 percent interest in the Retail Group to Vroom & Dreesmann B.V., the largest retailing organization in the Netherlands, with investments in Europe, the United States, Japan and Brazil. This alliance should bring multiple benefits to Grace and its new partner alike.



President J. Peter Grace (second from right) talks with executives at Darex plant in Quilmes, Argentina.

Grace's recession-resistant characteristics served us well in 1980. Because of the unsettled economic climate, our Specialty Chemicals business (including our 84 percent-owned subsidiary, Chemed Corporation) operated below its normal earnings growth rate of about 15 percent per year—but still achieved a creditable gain in operating income after

lines in all—and has strong leadership positions not only in the United States but also abroad. Specialty Chemicals sales in 1980 exceeded \$2 billion for the first time.

Starting in the early 1970s, Grace made a major decision to expand the Company's oil and natural gas interests rapidly. This was followed by a move to

Our three largest restaurant divisions had generally satisfactory results in 1980 as most units coped successfully with rising costs of food and labor. New store openings and selective price increases helped these units to boost sales and earnings. Offsetting the favorable results, however, was the failure of Del Taco, our Mexican fast food subsidiary, to operate profitably. Remedial steps are being planned, including sale or franchising of a number of Del Taco units.

Outlook for 1981

In 1981 we expect to achieve our main objective—another record year for sales, earnings and dividends. Agricultural Chemicals and Natural Resources should be particularly strong. Increased grain prices and worldwide dependence on U.S. farm exports—combining to raise U.S. farm income—suggest that a strong fertilizer season lies ahead. Despite uncertainties about weather conditions, we expect an increase in our fertilizer shipments to more than six million product tons this year. Moderate price increases applied to such physical volume have a leveraged effect on bottom line earnings.

Grace's annual domestic oil and gas production should increase from 10.8 million oil equivalent barrels in 1980 to more than 12 million in 1981. Long-range prospects for intensive utilization of our oil field services are excellent under continued price pressures from OPEC countries and new incentives inherent in domestic oil price deregulation and phased decontrol of natural gas. Our participation in coal mining, an energy source of increasing importance, will become more significant in future years as electric utilities convert from oil to coal, as demand for U.S. coal in Western Europe and the Far East accelerates, and as coal prices move closer to the heating values of oil and natural gas. Partnerships in which Grace has a 47.5 percent interest have acquired coal reserves in the eastern United States totaling 130 million

tons and complementing an even greater amount of western coal reserves now under development or in production.

Our largest business activity—Specialty Chemicals—is expected to outperform 1980's results, aided by an anticipated economic recovery in the second half of this year. Improved consumer demand resulting from more favorable economic conditions should benefit many of our other businesses, including retailing and restaurant activities.

We are confident that our goals for sales and earnings growth can be met in such a climate and that objectives for improving returns on investment, as well as for continued dividend progress, can be achieved.

In every area we continue to be alert for opportunities to add to our product lines, enter new markets, introduce better production methods and adopt new technologies. A number of such projects are currently underway including:

- 1) Development of separators for nickel-zinc batteries in electric cars;
- 2) Research and development of catalysts to help refineries improve the processing of crude oil;
- 3) Introduction of new auto catalysts to meet 1983 emission control standards;
- 4) Licensing of technology for manufacturing nitroparaffins;
- 5) Biogenetic projects;
- 6) Development of chemical additives for oil drilling fluids to increase efficiency; and
- 7) Design and engineering of plants to produce liquid hydrocarbons from coal.

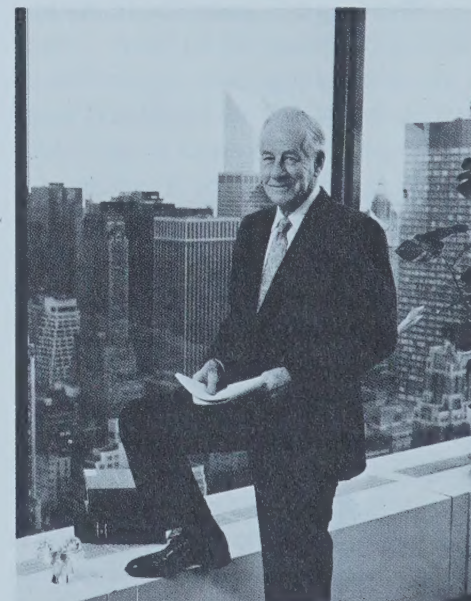
Public Policy

We take this opportunity to offer our views on matters of utmost importance to shareholders and citizens alike. The economic condition of the United States continues to be beset by a tax structure that destroys incentives to work, by low

productivity in manufacturing, chronic inflation and an enormous Federal deficit. Recent strength in industrial output, however, suggests that the recession may have bottomed and that gradual improvement can be expected.

This prospect can be enhanced by steps the new Administration is proposing to provide incentives for capital formation and investment through enlightened tax legislation (including the removal of tax disincentives on capital gains), to allow more rapid depreciation on plant and equipment and to narrow the gap between government spending and receipts. Such fiscal measures, if enacted by the Congress, combined with firm monetary policies by the Federal Reserve, will speed growth and lead to a balanced budget and lower inflation.

Chairman Felix E. Larkin



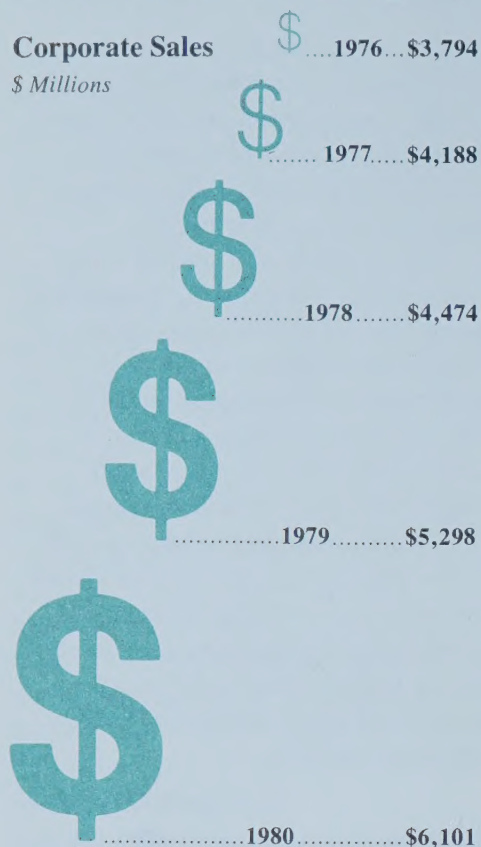
We firmly support this as a wise program which can restrain inflation, secure economic stability, restore fiscal sanity and create new jobs, together with higher productivity and increased capital investment.

We discern a new and progressive spirit in this country which will help us in the coming test of our ability to accomplish these critical objectives.

Sales and Earnings Achieve All-Time Highs *Dividend Increased*

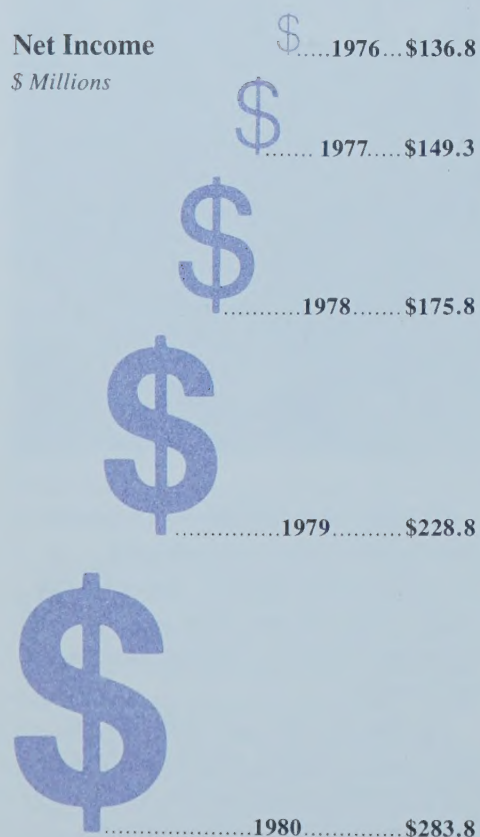
Corporate Sales

\$ Millions



Net Income

\$ Millions



Despite the recession, persistent inflation and record-level interest rates, W. R. Grace & Co. realized the highest sales and earnings in its 126-year history.

The annual dividend rate was also raised to its highest level ever, an indicated \$2.30 a share. In addition, the stock hit a new peak—63½ on November 20—and its trend over the 12 months ended December 31, 1980, exceeded the Dow Jones Industrial Average.

Sales in 1980 reached \$6.1 billion, up 15 percent from \$5.3 billion in 1979, which was restated for poolings of interests. Net income for the year ended December 31, 1980, was \$283.8 million, or \$6.08 per common share, versus 1979 earnings of \$228.8 million, or \$5.01 per share, increases of 24 percent and 21 percent, respectively.

Excluding the impact of adjustments for foreign currency translation (FAS No. 8) and gains/losses on divestments, earnings were \$290.6 million compared with \$222.7 million for the year 1979. Earnings per share before these non-operating factors were \$6.23, up 28 percent from \$4.88 in 1979.

Fourth Quarter Results

In the final quarter of 1980 net income totaled \$67.4 million, equal to \$1.44 a share, up two percent from the fourth quarter of 1979. Earnings results were after a \$10.3 million (after taxes) provision for loss on the disposition of certain *Del Taco* units. Sales climbed to \$1.7 billion from \$1.5 billion, a gain of 15 percent.

Excluding foreign currency adjustments and divestments, earnings for the fourth quarter were \$71.1 million, or \$1.52 a share compared with \$64.3 million, or \$1.40 a share for the last three months of 1979.

The results in the fourth quarter and 12 months ended December 31, 1980, were due primarily to increased operating income from Agricultural Chemicals and Natural Resources. While income from consumer businesses

overall was below the strong fourth quarter of 1979, Grace's specialty retailing activities showed considerable strength with a gain of 10 percent.

Steady Performance Predicted

Grace expects even stronger sales and earnings in the 1980s. This is attributed to the anticipated steady performance of specialty chemicals, the favorable prospects of agricultural chemicals, the robust results of natural resource operations and the improvement expected from consumer businesses as the economy recovers. President J. Peter Grace has projected Grace's sales to hit the \$10 billion mark by 1985.

"We have every confidence we can maintain our technological and market positions around the world, as well as our growth rate and return on investment in specialty chemicals, which was 25 percent in 1980," asserts Mr. Grace. "In Agricultural Chemicals, we're completing year number two in what we expect to be a long-term up cycle. We had a slump in 1976-1978, and we're enjoying the upside now."

Dividend Increases For Seventh Consecutive Year

For the seventh consecutive year, the Board of Directors of W. R. Grace & Co. raised the dividend rate—with a higher increase in 1980 than those voted in recent years. An indicated annual rate of \$2.30 a share was approved in July 1980. This level represents an increase of 25 cents, or 12.2 percent from the previous rate of \$2.05 a share.

Expressing the Board's optimism for the future, President J. Peter Grace said, "Grace's goal is to protect shareholders against the effects of continued inflation by attempting to increase the dividend rate at least as fast as the rise in the cost of living."

Specialty Chemicals Lead in Earnings

Specialty chemicals, Grace's biggest moneymaker in 1980, generated \$140.1 million in operating income after taxes, or 37 percent of Grace's total. (The specialty chemical figures exclude *Chemed Corporation*, which is discussed as a separate business segment.) Specialty chemical sales were \$1.9 billion.

Looking to the future, specialty chemical sales are expected to grow

about 14 percent a year during the 1980-1985 period, continuing the steady rise of the last 15 years. Sales are forecast at more than \$3.5 billion by 1985.

In the last five years, European specialty chemical sales increased 17 percent per year, and *Pacific-Inter-american Division* sales 14 percent. Sales in these areas are expected to accelerate faster than domestic specialty chemical sales in the next five years.

To accommodate continuing growth, Grace spent \$134 million on capital projects for specialty chemicals alone in 1980; \$165 million is budgeted for 1981.

Grace markets 85 specialty chemical product lines ranging from can sealants and concrete additives to flexible packaging, petroleum cracking catalysts and automotive chemicals. Some 120 plants in 20 countries produce these chemicals for customers the world over.



Davison Opens Catalyst Facility

Davison Chemical Division started making *Super D* fluid cracking catalysts at a new plant in Lake Charles, Louisiana in 1980. Because these catalysts are denser and harder than conventional types, they reduce stack emissions at oil refineries. Their job is to "crack" crude oil into gasoline, jet and diesel fuels and heating oil. Davison's *Super D* catalysts are the largest selling fluid cracking catalysts in the world.

In another 1980 development, Davison acquired *National Kaolin Products Co.* of South Carolina. Kaolin is a clay used in the manufacture of fluid cracking catalysts. It also works as a pigment extender and as a filler and reinforcer for rubber products.

Other 1980 Highlights

Davison began making *Magnapore* catalysts for high-density polyethylene plastics at Curtis Bay, Maryland. Davison also supplied catalysts for three-way exhaust emission control in 1980- and 1981-model cars.

Plans were announced for a molecular sieve plant to open in Valleyfield, Quebec in 1981. Sieves are used in cracking catalysts, insulated glass, detergents and in natural gas drying.

Workmen put finishing touches on new Super D plant in Lake Charles, La.



Rolls of packaging film are ready for shipment at Cryovac plant in Iowa Park, Tex.

Cryovac Expands, Adds Film

The *Cryovac Division's* 1980 flexible packaging sales were aided by larger plants and a brand-new product: multi-ply shrink film.

This division, which puts sparkling clear wraps on everything from chickens to cheeses, expanded two facilities in Texas and South Carolina.

To keep pace with the increasing acceptance of American-style supermarkets in Europe, *Barrier Bag* production capacity was enlarged in the United Kingdom, France, Italy and Germany in 1980.

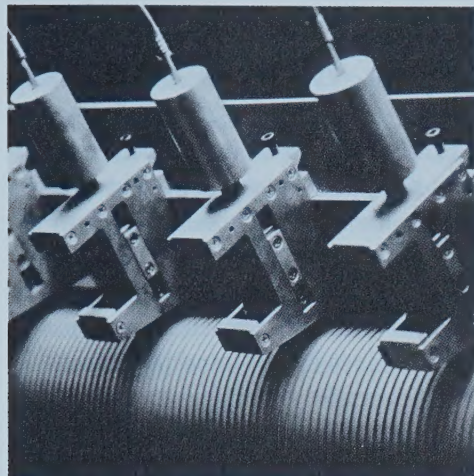
The *Barrier Bag*, with three sturdy layers, comes through heavy store handling without a puncture. It has been popular for shrink-wrapping fresh and processed meat, poultry and cheese since its introduction in the United States in 1970.

The new family of multi-ply films consists of several plastic materials layered like wood strips in plywood. These films offer superior clarity and tear resistance and permit a "gentle shrink." Ideal for wrapping textiles in cardboard sleeves and for notebook paper, multi-ply film wraps without warping.

Cryovac is also moving ahead with sausage-shaped plastic casings for freezing "pumpable foods" such as soups and sauces for delivery from central commissaries to satellite restaurants. Among those already using the new casings are Wendy's, the big Midwest and eastern fast fooder, and Grace's own *Far West Services* and *El Torito-La Fiesta* restaurants.

■ *Formpac*, a unit of Cryovac Division, has started up a polystyrene foam tray plant in Indianapolis to be closer to its many midwestern customers.

Products Due From Polyfibron; Separator Plant Set for Europe



Plastic separators for maintenance-free batteries, an important part of the *Polyfibron Division's* U.S. business, will also be manufactured in Europe. While maintenance-free batteries hold about 40 percent of the U.S. battery market, they are just getting started in Europe. In 1980 Grace's *European Darex Division* decided to build a separator plant at Selestat in northeastern France, near

a maintenance-free battery plant launched in late 1980 by Delco-Remy /GM France (part of General Motors). The Darex facility is scheduled to open in the first half of 1982.

Separators are porous sheets which serve as insulation between positive and negative plates, preventing short circuits in lead-acid batteries.

More Printing Blankets

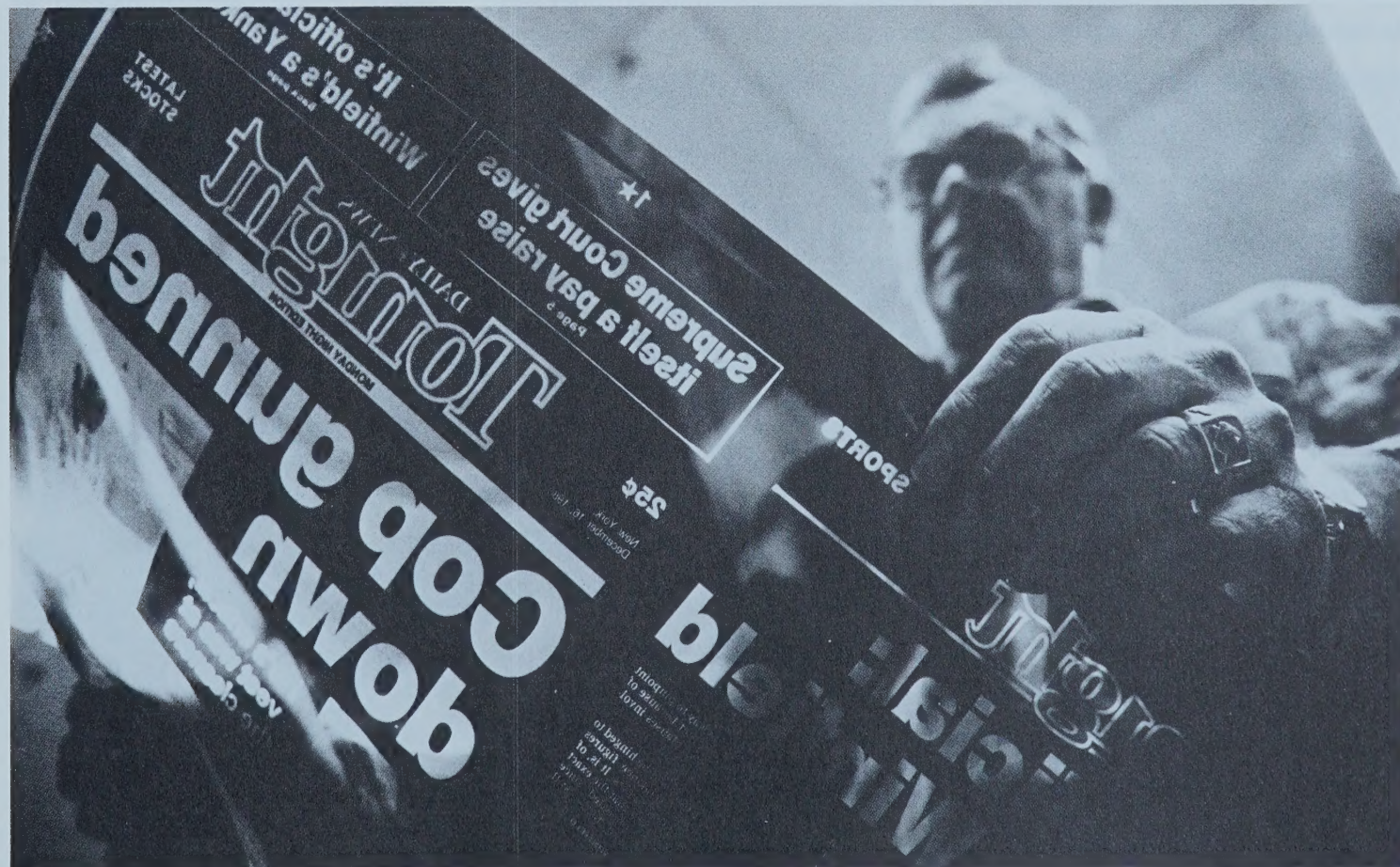
On another front, Polyfibron will open a printing products plant in Morristown, Tennessee in the summer of 1981. This facility, the second of its type, will make blankets, which transfer an image from a cylinder to the printed surface, for use with offset presses in the commercial printing industry. Polyfibron blankets contain a compressible polymer/fiber, or foam layer, which produces improved print quality and allows higher operating speeds on presses.

New Photopolymer Uses

Polyfibron also devised new applications for its liquid photopolymers: producing electronic circuit boards and printing bank checks. Its *Letterflex* printing plate system, which converts photopolymer into plastic plates for use on letterpresses, added customers in 1980. Among them: *Chicago Sun-Times*, *The Dallas Morning News* and the Greater Buffalo Press, printers of comics for a majority of U.S. newspapers.

NASA Contract

In another development, Grace's *Research Division* and Polyfibron are negotiating a contract with the National Aeronautics & Space Administration to develop improved separators for alkaline batteries. The goal is separators that will increase the life of nickel-zinc batteries in electric vehicles from 30,000 to at least 50,000 miles.



The Daily News completed its switch to the Letterflex system in 1980.

\$38 Million Goes for Research

To keep "one step ahead of a changing world," Grace spent more than \$38 million on research and development in specialty chemicals in 1980.

Scientists associated with Grace plants around the world and at the *Washington Research Center* in Columbia, Maryland develop products which will serve industry and consumers in years to come. In fact, products created by Grace researchers over the last decade accounted for 30 percent of Grace's specialty chemical sales in 1980.

Among commercial items developed in a Grace laboratory is *Hypol*, a water-activated urethane foam with numerous uses. It goes into flame-retardant mattress cores for prisons and other institutions, can function as a synthetic skin for burn victims and help rainwear and camping tents to "breathe." Other commercial uses for Hypol include growth plugs for tree seedlings, elbow pads for the bedridden and sun visors for cars.

Grace scientists have also created photopolymers for no-wax floor coatings and for making electronic circuit boards.

Modern automotive sealants, sound deadeners and second-generation emission catalysts have rolled out of Grace laboratories, too. In automotive and many other lines, Grace is miles ahead.

D&A Launches High-Solids Sealants

The *Dewey and Almy Chemical Division* (D&A), largest U.S. supplier of metal container sealants, began commercialization of new can sealants in 1980.

To help can makers comply with government restrictions on solvent emissions into the atmosphere, D&A began marketing a high-solids sealing compound line that is water-based and another that is solvent-based, both for sealing the end to the main body of the

can. With these new sealant formulas, manufacturers will maintain clean-air quality.

In another 1980 development, D&A introduced *Darex Mark 80*, the world's fastest can-end lining machine. Processing 1,000 ends a minute, it helps beer and beverage can-end makers to be more efficient.

Also contributing to the sales picture was the addition of General Motors and Ford as customers for D&A automotive chemicals in 1980. Certain General Motors automobiles began using *Tero-lan* plastisol sealant, and some Mercury Lynx and Ford Escort cars started using *Terokal* underbody coatings. D&A continues to supply sealants and coatings to Volkswagen and Toyota in the United States.

In 1980 *Emerson & Cuming*, a D&A unit, delivered the world's largest syntactic foam buoy to the "OTEC I" ocean thermal energy conversion power plant off the Hawaiian coast. This plant is part of a U.S. Department of Energy project to study alternative energy sources.



Volkswagen Rabbits, manufactured in New Stanton, Pa., use Dewey and Almy automotive chemicals.

Chemed Celebrates 10th Anniversary *Leader in Water and Waste Treatment Products*

Grace's 84 percent-owned *Chemed Corporation* will mark its 10th year as a public company in May 1981. For this thriving specialty chemical operation, the decade has been one of opportunity and growth—most recently illustrated by its 1980 acquisition of *Roto-Rooter Corporation*, a leading U.S.-based franchisor for cleaning sewers and drain pipes. (See story on Roto-Rooter.)

Based in Cincinnati, Chemed specializes in water and waste treatment and air pollution control products and services; institutional food-service chemicals; specialty industrial chemicals; and health care products and services.

A decade ago, Chemed evolved from Grace's Specialty Products Group, which consisted of *DuBois Chemicals*, *Dearborn Chemical U.S.*, *Vestal Laboratories* and *The Veratex Corporation*. These businesses were transferred to Chemed in 1971, and in May of that year the new company offered shares in a public sale.

DuBois Is Largest

Chemed's largest operating company, DuBois Chemicals, is a leader in marketing specialized cleaning and maintenance products, coating compounds and floor care products to industry and to hospitals and other institutions. DuBois is also a major supplier of insti-

tutional food-service chemicals, including dishwashing compounds, rinse additives and laundry detergents. This company's products are offered internationally through its own sales force and a network of licensees and distributors.

Other Products Treat Water and Waste

Dearborn Chemical U.S., Chemed's second largest operating company, specializes in water and waste treatment chemical products and services, marketing them both in the United States and overseas. A pioneer in developing chemicals that prevent harmful buildup of deposits in boilers and water cooling towers, Dearborn supplies a complete line of corrosion inhibitors, scale and deposit removers and antifoulants to industrial and institutional customers.

Through the combined efforts of Dearborn and DuBois, Chemed has become one of the largest companies serving the worldwide water and waste treatment market.

Chemed also serves the health care industry by offering diversified products to health care professionals and institutions and private patients.

Vestal produces specialty chemical products for many health care applications. Among its products are germicidal cleansers, antiseptic soaps and other skin cleansers. Vestal also markets

water treatment products to health care facilities such as hospitals and convalescent homes.

Through *Greene & Kellogg*, Chemed provides a complete line of respiratory therapy products and services, oxygen concentrating equipment and other specialized medical supplies.

Finally, Veratex distributes more than 10,000 medical products such as disposable examination gowns, towels, sheets, table rolls, syringes and needles. These products are sold to physicians, dentists, veterinarians and other practitioners.

Growing Company

Chemed's businesses share several characteristics. All are fairly recession-resistant, selling products and services for environmental and health maintenance—essential even during economic downturns. Chemed is marketing- and service-oriented and, therefore, people-oriented. Since 1971 it has combined these factors with strong entrepreneurial management to achieve growth in sales and earnings exceeding 15 percent annually on average as well as a dividend rate showing an average annual increase of 22 percent.

For these reasons, Grace looks with pride on Chemed's growth and important achievements in its first decade as a public company.

Roto-Rooter Added To Chemed Roster

Nationally known *Roto-Rooter Corporation* was acquired by *Chemed* in 1980, giving Chemed a leading position in the residential sewer, drain and pipe cleaning market.

A privately held firm founded in 1935 and based in West Des Moines, Iowa, Roto-Rooter operates in all 50 states with more than 700 franchisees that clear grease, scale and corrosion

from many kinds of pipes, drains, roof vents and farm irrigation lines. Roto-Rooter also manufactures equipment for use by its franchisees and provides support through national advertising, promotional material and management assistance.

Together with Roto-Rooter, Chemed acquired *Nurotoco, Inc.*, Roto-Rooter's largest franchisee, which operates prin-

cipally in metropolitan New York City, Boston, Philadelphia, Baltimore and Washington, D.C.

In addition to residential cleaning, Roto-Rooter serves municipal and industrial customers, hotels, hospitals and apartment buildings. The company has just launched its own home product line with the introduction of *Roto-Solv*, a concentrated grease solvent.

♪ AND AWAY GO ♪ TROUBLES DOWN THE DRAIN® ♪

Construction Products Division Waterproofs White House

Construction Products Division has a way with water as well as with concrete, as it demonstrated in a string of 1980 projects.

Domestically, for example, *Bituthene* waterproofing membrane was installed in the East and West Wings of the White House and at Kennedy Center for the Performing Arts, Washington, D.C. In addition, the product was used to provide moisture protection for the Baltimore Convention Center, the New York City subway system, Atlanta's Cyclo-

rama restoration and the Philadelphia commuter tunnel, among many U.S. building projects.

In Canada, *Darex* concrete admixtures will be used in the construction of the Revelstoke Dam, the largest concrete dam in that nation and one of the largest in the world. The \$1.5 billion hydroelectric project is for the British Columbia Hydro and Power Authority.

A tunnel lined with *Tunnel Pak* bearing pads was completed under the Suez Canal in 1980. This tunnel links the Nile

Delta with the Sinai Peninsula. Under pressure, the pads can compress at least 40 percent without shattering, helping the tunnel to accommodate ground settlement and future canal dredging.

The pads were supplied by *Servicised Limited*, a Grace-owned subsidiary in England.

Meanwhile in Europe, engineers tested Tunnel Pak bearing pads for Chunnel, the proposed English Channel tunnel between England and France.

Organic Division To Build Three Plants

Organic Chemicals Division has three plants on the drawing board for Deer Park, Texas, near Houston. Rising on the 180-acre site will be facilities to make dispersants and glycine. Both plants are expected to start up in 1982.

Dispersants, which separate fine particles in solution, are used in the manufacture of paints, polymers, synthetic rubbers, textiles and artificial leather, and as concrete admixtures. Glycine, an amino acid and protein building block, is an intermediate used in cosmetics, pharmaceuticals, animal feed and insecticides.

Organic Chemicals is planning to enter the nitroparaffin and derivatives market as a result of a license agreement reached with Société Chimique de la Grande Paroisse, a subsidiary of L'Air Liquide of France.

Nitroparaffins and their derivatives are specialty organic chemicals used as solvents for printing inks and paints, in degreasing solvents for industrial and dry cleaning applications and in explosives. In addition, they are used to make pharmaceuticals, pesticides and consumer products. Nitroparaffins have many applications and are basic ingredients which have no generally available substitutes.

Agricultural Chemicals Group Fertilizer Sales Volume
(millions of product tons)



Tight Grain Supplies Boost Fertilizer Prices

"The world situation in grain supply and demand is becoming critically tight," declares Lloyd L. Jaquier, a Grace executive vice president and group executive of the Agricultural Chemicals Group. During the last 10 years, consumption has exceeded world production, depleting reserves. Today, world grain inventories are at minimum practical levels and are forecast to remain low during the next five years. He predicts that this condition combined with other factors will help make the fertilizer industry less cyclical in the future.

Mr. Jaquier sees more stable, higher quality earnings because of such fundamental factors as the cost and availability of natural gas, limited high quality phosphate rock deposits and the rising capital cost of new production facilities. Higher agricultural commodity prices and farm income also continue to contribute to the condition.

Adds Mr. Jaquier: "We also anticipate an excellent earnings year in 1981 because of continuing tight supplies of world grain and an increase of 14 percent in realized net farm income as forecast by the U.S. Department of Agriculture."

Agricultural Chemicals Tops in Growth

Agricultural Chemicals Group (ACG) led all other Grace groups in growth of operating income after taxes in 1980—a 157 percent increase over 1979.

Operating income after taxes totaled \$85.2 million in 1980 compared with \$33.1 million in 1979.

Fueling the growth were higher prices for ammonia, phosphate and mixed fertilizer products in domestic and export markets. In addition, U.S. farmers reaped higher prices for their corn and coarse grain because of the 1980 drought, leading them to invest in more fertilizer.

ACG's operating income included \$16 million from the first of four yearly transfers of phosphate reserves which Grace is expected to contribute to a 50/50 partnership with International Minerals & Chemical Corporation (IMC). A Grace subsidiary and IMC will develop the Four Corners mine near Mulberry, Florida, slated to go on-stream in late 1982.

Quality Reserves

With about 100 million tons of phosphate rock, the Four Corners area is regarded as among the best undeveloped phosphate rock sites in North America. Phosphate, along with nitrogen and potash, is one of the three basic plant nutrients. Grace is in a strong competitive position as the costs of these raw materials continue to rise, since it owns phosphate rock reserves purchased earlier when prices were lower.

Four Corners enjoys large reserves, low production costs, high quality phosphate rock and nearness to transportation (including deep water for export); it will start producing as the fertilizer profit outlook turns even brighter. Expected to be mined at the rate of five million tons a year for 20 years, the Four Corners mine will pass its raw phosphate rock through what will be the largest beneficiation plant in Florida.

New Phosphate Projects

The Four Corners project is being accompanied by two other phosphate projects. Ft. Meade Chemical Products, a Grace/U.S. Steel joint venture, is building a 440,000 ton-a-year phosphoric acid plant at U.S. Steel's Ft. Meade, Florida site. Also planned is a Grace-owned diammonium phosphate plant at the Bartow Chemical Complex in Florida near Tampa.

More Acreage

In this same expansive mode, ACG bought 540 acres rich with more than

two million tons of phosphate rock in central Florida in 1980. These reserves will be recovered as part of the Manatee North mine in south central Florida, to start up about 1989. With this addition, Grace owns more than 80,000 acres with more than 300 million tons of technologically minable phosphate rock reserves in central Florida and is one of the largest owners of domestic phosphate rock reserves in the industry.

ACG's capital expenditures in 1980 totaled \$27 million; 1981 expenditures are budgeted at \$70 million.



Dragline Princess Grace will mine phosphate rock in Florida.

TRG Rig Count



Energy Profits Could More Than Double by 1985 *Earnings Up in 1980*

Operating income after taxes for the Natural Resources Group (NRG) soared to more than \$107 million in 1980, a 52 percent leap over nearly \$71 million in 1979. It was the fifth consecutive year that NRG showed substantially higher earnings. Operating income is targeted to exceed \$250 million by 1985, more than double the 1980 figure.

About 33 percent of Grace's 1980 energy profits came from oil and gas production and 60 percent from energy services. Grace produced 10.8 million barrels of oil equivalents in 1980, about 60 percent of which was natural gas. This compares with 9.7 million barrels in 1979.

The average annual increase in earnings for 1973-1980 was 56 percent, with the projection for 1980-1985 at 20 percent. NRG's rate of return on average total capital employed—at present in the 15 percent range—is expected to exceed 17 percent in 1985. Cash flow for 1980 rose to more than \$200 million and is expected to reach \$500 million by 1985.

NRG's sales in 1973, totaling \$90 million, climbed to \$690 million in 1980 and are headed for \$1.8 billion in 1985. Sales grew at a 34 percent annual average from 1973 to 1980 and are forecast to expand at a 22 percent annual rate for 1980-1985.

During the eight years 1973-1980, NRG's capital expenditures and investments exceeded \$1.4 billion.

More Rigs Due

Among Grace's energy service businesses is *TRG Drilling*, a contract driller with divisions in Denver; Lafayette, Louisiana; Fort Smith, Arkansas; Cushing, Oklahoma; and Oklahoma City. TRG started with three rigs in 1973, had 83 at the end of 1980 and is projected to reach 134 by 1985.

Booker Drilling, another well service operation, has completion, workover

and drilling rigs and operates in the Gulf of Mexico. Now using 23 rigs, Booker expects to have 33 by 1985.

Homco, a leading supplier of drilling equipment and services, has 32 U.S. locations, plus four in Canada, three in the North Sea area and one each in Trinidad and Singapore.

Rent-It, a construction equipment rental and sales business, has 19 rental yards in the Southwest.

ST Services operates 22 liquid storage facilities in 15 states with a holding capacity of about 4.2 million barrels.

Energy Acquisitions

In 1980, *Grace Petroleum Corporation* (GPC) acquired from Centex Corporation, Dallas, interests in four uncompleted deep natural gas wells, undeveloped acreage and a gas plant in central Mississippi. The wells, in the Smackover formation, are 20,000-23,000 feet deep and represent a major NRG acquisition.

GPC also added Mallard Exploration's working interests in 13 producing gas wells, a treating facility for sulfur removal and a gas plant for extraction of natural gas liquids, all in Big Escambia Creek Field, Alabama.

General Tool & Supply was also acquired in 1980 to provide oil field services and supplies in Oklahoma, southern Kansas and the Texas Panhandle.

Parker International Corporation, added in 1980, rents specialized drilling equipment and makes related supplies. Its chief markets are the Gulf of Mexico and the Overthrust Belt.

To compete in the active Arkoma Basin in eastern Oklahoma and western Arkansas, TRG Drilling added *Miller Drilling Company* of Arkansas in 1980.

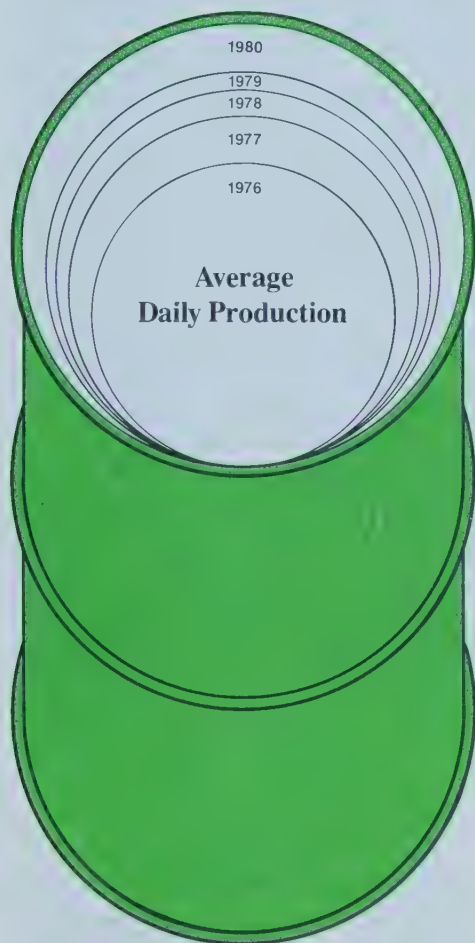
■ ST Services increased the capacity of its Texas City storage terminal, which is now the largest public butadiene storage facility in the United States.

TRG Unveils Its First Ultra-Deep Rigs

TRG Drilling christened its first ultra-deep onshore drilling rig last November in Oklahoma City.

The 28,000-footer operates in TRG's *Mid-Continent Division* under contract to Mesa Petroleum Company. It is drilling to 26,400 feet for natural gas in the Anadarko Basin in western Oklahoma.

A similar rig was delivered in February 1981 to *Glasscock Drilling*, another TRG division. This rig is drilling to 28,000-30,000 feet in the Tuscaloosa Trend, Louisiana in search of gas for Amoco Production Company, a job that is expected to take about a year to complete.



1976	1977	1978	1979	1980
20.2	23.2	25.1	26.6	29.6

000 Bbls. Oil Equivalent

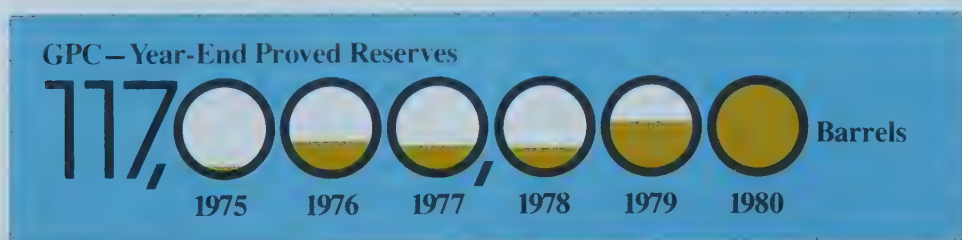
Oil, Gas Production Breaks Record

Grace's oil and natural gas production increased to a record high in 1980, ranking the firm among the top 15 U.S. independents.

Grace Petroleum Corporation (GPC) lifted 10.8 million barrels of oil equivalents last year, equal to about 29,600 barrels a day. This represents a 286 percent increase from the 2.8 million barrels of oil equivalents produced in 1973.

GPC has increased its 1981 budget for exploration and development to \$130 million, 20 percent over 1980. The program is expected to develop about 22 million barrels of proved reserves through exploration and drilling.

In 1980 about 24 million proved developed barrels were added to reserves, bringing total proved reserves to about 117 million oil equivalent barrels at year-end. The company will continue exploration in major basins, including Anadarko and Arkoma in Oklahoma and Arkansas; Williston in the Dakotas and Montana; East Texas; and the Overthrust Belt in the Rockies.



Oil Field Services Thrive in Fuel Search

Oil field services, a significant part of Grace's Natural Resources Group, are booming. Grace is keeping pace with increased needs for drilling rigs and related services as the search for hydrocarbons goes on.

TRG Drilling, a leading land-based contract driller in the northern Rockies, Mid-Continent and Gulf Coast, has one of the highest U.S. rig utilization rates because of its strategic locations and deep-drilling capability. Its rate rose to 97 percent in 1980, up from 85.5 percent in 1979.

With the acquisition of additional rigs and one drilling company in 1980, TRG's rig count increased to 83 at the end of 1980 compared with 53 rigs at year-end 1979.

Because most oil and gas operators do not generally own their own drilling equipment, they must turn to contract drillers like TRG, one of the largest among 600 in the United States, for their drilling needs. TRG rents its rigs to oil operators, most of whom are independents who drill 70-80 percent of all U.S. wells; TRG also serves the oil majors.

Grace's other oil field products and services include drill collars, casing cutting, tool and pipe rental, fishing and cutting, and freepoint and backoff services. Grace also offers drilling muds, platform lighting, specialty equipment leasing, liquid storage facilities, gas measurement, computerized gas production and plant accounting services, plus petrochemical equipment rentals and sales.

■ In recent years U.S. drilling activity has been increasing with the rising price of energy, a need basic to the world economy. The U.S. energy industry's advantage is its location in a politically stable nation with sizable petroleum reserves and capital.



The Terry Eagle Coal Company, acquired in 1980, will add to eastern coal production.

Eastern Coal Added in 1980

Grace and two partners acquired two eastern coal mining operations with about 130 million tons of coal reserves in 1980.

Taking part in the eastern coal venture were subsidiaries of Grace and The Hanna Mining Company at a 47.5 percent interest each, and a Liberty Capital Group affiliate at five percent. The first acquisition was *Rapoca Energy Company*, added in the spring of 1980. Rapoca produces more than one million tons a year of steam and metallurgical coal and is expected to increase this figure to about two million

tons a year by 1985. Rapoca has more than 60 million tons of low-sulfur reserves beneath the eastern flanks of central Appalachia and controls more than 25,000 acres in Virginia and Kentucky.

The venture also acquired *Terry Eagle Coal Company* in the fall of 1980. Terry Eagle controls 33,000 acres in West Virginia, covering more than 70 million tons of recoverable low-sulfur coal which comes from underground mines. Terry Eagle is expected to step up output from about 400,000 to about 1.2 million tons annually by 1984.

The next addition, planned for completion in early 1981, is *Barber Paramount Coal Corporation* and subsidiaries. Barber Paramount mines and sells about two million tons of coal a year. It controls leases on nearly 40 million tons of clean, recoverable coal and is active in deep and surface mining.

Harold R. Logan, a Grace executive vice president and group executive of the Natural Resources Group, forecasts that the joint venture's eastern holdings will grow through acquisitions, bringing Grace's share of eastern coal production to about five million tons a year by 1985.

Colowyo Coal Progresses

Colowyo Coal Company, another Grace/Hanna joint venture, exported subbituminous coal in 1980 to Korea under a five-year contract to supply a total of 1.6 million tons. Colowyo also shipped 60,000 tons to Japan. This export business is expected to grow and include Taiwan and the ports of Hong Kong and Singapore.

Colowyo finalized a 35-year agreement with four Colorado utility companies to supply 74 million tons of coal. Delivery will start in 1983 on a contract valued at more than \$1 billion at today's prices. With other long-term arrangements, Colowyo expects to be in a sold-out position when it reaches planned annual production capacity of 4.3 million tons in 1984.

Coal for Celanese

The *Hayden Gulch* mine, also a Grace/Hanna venture in Colorado, continues to ship about 550,000 tons of low-sulfur steam coal annually to a Celanese plant in Pampa, Texas. This coal fuels the nation's first coal-fired industrial boiler conversion and cogeneration system.

In the Colowyo/Hayden Gulch region, Grace has more than 70,000 surface acres which are owned, leased or under option in Colorado and Wyoming, covering an estimated one billion tons of recoverable Federal reserves. Further down the road, Grace expects the Federal government will put new blocks of western coal reserves up for leasing.

Coal mines in which Grace has 47.5-50 percent interests throughout the United States had total production of 4.1 million tons in 1980 compared with 2.1 million tons in 1979. These mines, which hold more than 300 million tons of reserves, operated at a slight loss in 1980. However, they are expected to contribute \$25-\$35 million to Grace earnings by 1985.

Analysts Visit Coal And Oil Sites

Thirty-eight security analysts representing the national investment community toured the *Colowyo* coal mine in northwestern Colorado last fall. During the visit to Colorado's largest surface mine, Ira E. McKeever, Jr., Colowyo's president and general manager, informed the group that more than 200 million tons of low-sulfur coal underlie the mine's 2,540 acres. The analysts viewed the dragline, rail load-out facility and coal crusher.

The following day, the analysts flew to Williston, North Dakota to see a rig operated by *Bomac Drilling*, a division of *TRG Drilling*. Executives explained the operation of the contract rigs and the growing business opportunities in the Williston Basin, which is the nation's largest geologic basin.

This basin, located in the Dakotas and Montana, has given the United States more than one billion barrels of oil since 1950 and still has another 1.5-5 billion barrels of untapped reserves. Officials characterize Bomac as Williston's busiest contract driller with 29 rigs working in this geologic province.

Analysts listen to Ira McKeever explain operations at Colowyo coal mine.



Grace Plans Joint Retail Venture With Dutch Firm

W. R. Grace & Co. has reached an agreement in principle to form a new company which would own and operate most of Grace's retail businesses.

The agreement would provide Vroom & Dreesmann B.V., the largest retailer in the Netherlands, with an opportunity to acquire up to a 50 percent share in all of Grace's retailing interests, except *Diana Shops* (women's apparel). Vroom & Dreesmann would acquire its share in five annual installments of 10 percent each beginning in 1981. The agreement is subject to the exercise of options by both parties.

Cash payments for the first and second installments—in 1981 and 1982—would amount to \$40 million and \$50 million, respectively. The three remaining installments would also be paid for in cash, based upon a multiple of 12 times the earnings of the 10 percent equity purchased by Vroom & Dreesmann each year.

The agreement, which is subject to execution of a definitive contract and approval by both firms' boards of directors, would give the Dutch retail concern an interest in Grace's *Herman's World of Sporting Goods* (92 units at

year-end 1980); home improvement centers of *Channel* (85), *Handy Dan* (100), *Handy City* (46), *Cashway* (12) and *Orchard Supply Hardware* (11); *J. B. Robinson Jewelers* (63); *Sheplers* western apparel (8), and *Bermans The Leather Experts* (50).

"This arrangement is in keeping with Grace's use of joint ventures in several of its chemical and natural resource activities," says Charles H. Erhart, Jr., a Grace executive vice president and sector executive. "It enables us to have the advantage of a strong partner while conserving on capital costs."



Executives cut the ribbon at another Herman's opening.

Retailers Focus on Practical Products for the 1980s

Although economic uncertainties during 1980 caused some reductions in consumer spending, Grace's Retail Group weathered the slowdown by planning store openings carefully and offering consumers cost-saving products.

The strategy is best defined as specialty retailing, a business area Grace first began developing with the acquisition of *Herman's World of Sporting Goods* in 1970. Six years later, Grace expanded its retail interests signifi-

cantly by entering the fast-growing home improvement center business. Other retailers Grace acquired through the years specialize in everything from western wear to women's wear, leather goods to diamond rings.

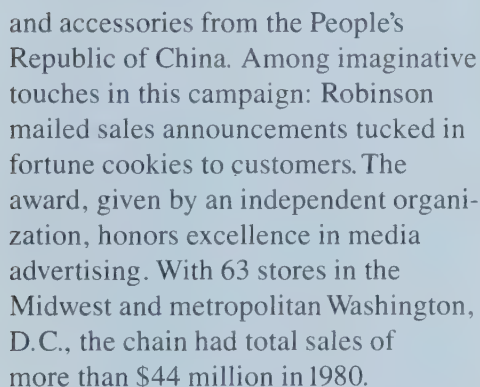
Athletic Footwear: A New Sports Winner

Playing up its vast array of athletic footwear, Herman's has launched "*Shoes for Sports*" departments within

selected units. The new concept is part of Herman's response to customer interest in athletic fashion and shopping ambience. Avoiding the locker-room look of other sports stores, this retailer cultivates wider appeal with warm, attractive decor and artful displays.

Women, in particular, have reacted to the increased emphasis on fitness and sports fashions. Investing in both equipment and apparel, they now are 40 percent of Herman's customers.

J.B. Robinson, Grace's specialty jewelry retailer, won a Clio award for excellence in advertising in 1980 for its promotion of antique and other jewelry.



Featuring diamond and gold jewelry in all price ranges, this retailer has won a loyal following with outstanding selection and consumer-oriented sales policies. Known for its exceptional six-week money-back guarantee on all merchandise, Robinson has established a special position in the prospering American jewelry market.

Diana Shops adds another dimension to the Retail Group. Joining Grace as part of the *Daylin* acquisition in 1979, this women's apparel chain had 146 outlets which generated 1980 sales of \$35 million. Offering a broad assortment of

merchandise in junior and misses sizes, Diana appeals primarily to women in the 18-35 age category.

Bermans The Leather Experts, a retailer specializing in leather outerwear, handbags, footwear and accessories, opened 14 stores in 1980.

Combining rustic romance with practical merchandise, Bermans stocks

enough variety to attract leather lovers from miles around. The chain, which was acquired by Grace in 1979, now has 50 outlets throughout the Midwest.

Like other Grace retailers, Bermans follows a specialist's strategy: identifying specific markets, building a dominant position and developing a merchandising format that appeals to customer perceptions of value while suiting today's sophisticated tastes.

Western Wear Booms

The current fashion trend of western and outdoor leisure wear across the country has spelled increased success for *Sheplers*, another Grace retailer. Acquired in 1976, Sheplers operates the "world's largest western stores," merchandising apparel, boots, pants and jeans, gifts and children's wear.

With customer-pleasing store design, merchandise selection, display and advertising, Sheplers has reinforced the western attraction and has given Grace a leading position in the market.

Surveys now confirm that consumers regard Sheplers as the place to go for western wear values.

Two Texas store openings in 1980—Austin and San Antonio—brought the number of Sheplers units to eight. Plans are to more than double that total by year-end 1985.

17



Handy City balloon promotes new store in Nashville, Tenn.

Grace Leads in Do-It-Yourself

Grace's 1980 acquisition of *Cashway Building Materials* home center chain boosted its already solid position in this growing industry. With recession-ridden consumers shying away from expensive home-repair contractors, do-it-yourself (DIY) has become an increasingly popular option. And, on the basis of sales directly to the individ-

ual consumer, Grace is the leading U.S. home center operation serving the DIY market.

Instead of letting inflationary prices postpone domestic improvements, more and more of today's home owners are tackling these projects themselves—everything from leaky faucets to major additions such as garages, porches and finished basements. By using their own skills and cashing in on home center values, people are keeping both their homes and budgets in top form.

Grace's venture into home center retailing began with the 1976 acquisition of *Handy City*, then a chain of 13 stores in the Southeast with sales of \$27 million.

In 1977 the Company acquired *Channel Home Centers*, with 33 stores in New Jersey and Pennsylvania. By the end of that year, Grace home centers totaled 58 with sales reaching \$123 million.

Through internal growth and the acquisitions of *Handy Dan Home Improvement Centers*, *Orchard Supply Hardware* and *Cashway*, Grace increased its home centers to 254 by year-end 1980, with annual sales of \$673 million.

New Concepts for Grace Restaurants

New Formats and Menus Introduced

Innovative concepts have sparked Grace's 616-unit Restaurant Group with 1980 sales exceeding \$525 million. Grace restaurants are continually testing the profit potential of new formats and menus in response to customer demand—important to top performance in food service.

New Looks at Far West

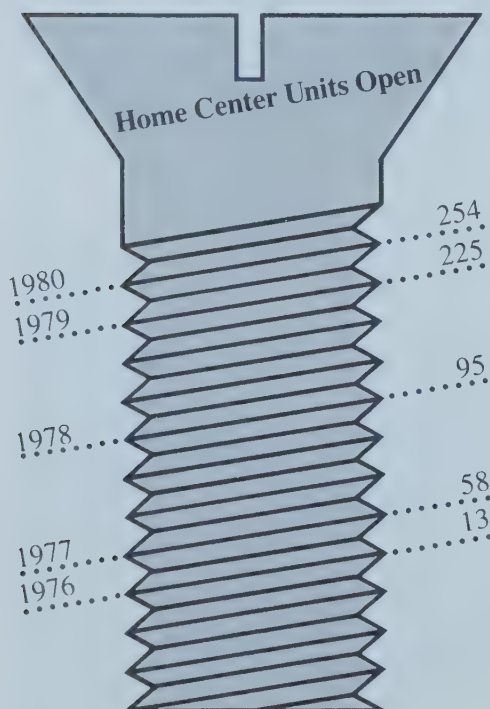
At *Far West Services*, acquired by Grace 10 years ago, the newest creation is *Baxter's*. Alfalfa-sprout omelets, "100 m.p.h. Chili" and other unusual entrées make this restaurant's menu casual and fun—a welcome contrast to traditional steak-and-potatoes. *Baxter's* is finding that lighter meals and snacks appeal to today's American families.

Attentive and courteous service, attractive decor and comfortable surroundings complete the style that makes each *Baxter's* meal an event. The overall effect is strong customer loyalty.

Another innovative Far West concept is *Dunbar's*. All units feature a continental menu, but the setting and style of each varies with its location. For example, *Dunbar's* in Palm Springs, California caters to an affluent crowd by sporting a "Country French" look with overstuffed armchairs, etched glass and a piano bar. Another location, *Dunbar's* at the Beach in Huntington Beach, California features a stunning harbor view plus top-of-the-line *Dunbar's* continental cuisine.

Far West's *Coco's* coffee shops are also catering to current customer tastes. Weekday specials now include a variety of pasta dishes. And, of course, for a treat in hamburgers, *Coco's* is still the place to go.

■ Grace restaurants are found coast-to-coast in 32 states.





Gilbert/Robinson:

A Restaurant For Every Occasion

Gilbert/Robinson (G/R) opened *Bristol Bar & Grill*, a seafood restaurant in Kansas City, in March 1980. Featuring "fresh seafood of the day" flown in for freshness, Bristol includes other surprising touches: an open bake shop, lunchtime salad bar, and—in the

lounge—an oyster and appetizer bar with genuine mahogany-paneled surroundings.

G/R believes in versatility, operating more than 50 restaurants bearing such names as *Houlihan's Old Place*, *Sam Wilson's*, *Annie's Santa Fe*, *Fred P. Ott's*, *Capt'n Jeremiah Tuttle's* and *Plaza III*.

Many G/R units borrow winning features from original Houlihan's restaurants: plants, decorative artifacts, brass fixtures, authentic antiques and the intimacy of multiple dining alcoves. Innovative menus and decor and friendly service reinforce the upbeat themes.

Latest Attraction: jojos Coffee Shops

jojos Restaurants is the newest addition to the Grace restaurant family. Operating 110 coffee shops at the close of 1980, jojos spans the United States with units in 15 states. These family-style restaurants appeal to diners of all ages and regions by combining savory foods and reasonable prices in a chic but comfortable setting.

Market Research: A Critical Factor

The key to identifying successful new themes in the restaurant business is market research. Preferences among customers evolve rapidly, and updated



Eating out is a pleasure at Las Brisas restaurant in Laguna Beach, Calif.

ElTorito: Tastes of Old Mexico

Two new dinnerhouse concepts, launched in 1980 by Grace's *ElTorito-La Fiesta* restaurant company, respond to a growing demand for Mexican food at popular prices. *Who-Song & Larry's* features singing waiters, while *Rosa Corona* has an atmosphere that makes each night a fiesta. Both restaurants are drawing enthusiastic crowds.

When acquired by Grace in 1976, *ElTorito-La Fiesta* consisted of 22 units located mainly in California. With the addition of 22 restaurants in 1980 alone, 70 now operate across the United States.

menus and formats are crucial to maintaining market share and increasing volume.

Anwar Soliman, a Grace senior vice president and group executive of the Restaurant Group, believes the market is best assessed by local managers who are with customers every day. "Encouraging individual response contributes to the development of effective restaurant operations," he says. "Managers not only can move quickly with a new idea and gauge its results, but also can accommodate regional tastes in food and format."

Japanese Accord Takes Grace Restaurants to Far East

In an agreement unprecedented for Grace, one of its popular restaurant themes was made available to a firm outside the United States. *Far West's* *Coco's* coffee shop format was licensed to Kasumi Stores, K.K. and its wholly owned subsidiary, Robin Hood, K.K., for introduction throughout Japan and several other Far Eastern countries.

Using the experience and technical know-how of *Far West*, Robin Hood launched its first *Coco's* unit in October 1980 in Tsuchiura City, a Tokyo suburb. Kasumi, a privately held Japanese company, has been active in the retail food business since 1961.

Japanese chefs are trained at Coco's in California.



New DelTaco Strategy Underway

Grace's Restaurant Group achieved significant improvements during 1980 in its *Del Taco* Mexican fast food restaurants, refining both menu offerings and operations management. However, because of start-up problems, *Del Taco* operated at a loss for the year. As a result, *Del Taco* is altering its strategy in each of its three marketing areas: Atlanta, Dallas/Ft. Worth and Houston.

When the revised program is completed, selected units will continue to be owned and operated by *Del Taco*. Other units—each determined by *Del Taco* to have profit potential if turned over to an individual operator—may be offered for franchising. If this part of the plan is implemented, franchisees would receive the full support and experience of *Del Taco's* marketing and operations staffs. Still other units will be divested by *Del Taco*. A provision for potential loss in connection with the revised program was recorded in 1980.

This new approach is expected to bring *Del Taco* into a profitable position in 1982.

Grace Opens Door To China

Far East Markets Hold Promise

Confidence in future U.S.-China relations and a call for the support of those relations by Western nations were expressed by President J. Peter Grace as he and a Company delegation returned from a visit to the People's Republic of China last November.

Guests of the Minister of Metallurgical Industry, Mr. Grace and his group held discussions in Beijing (Peking) with officials of several Chinese Ministries, the Fujian (Province) Investment & Enterprise Corporation, China International Trust & Investment, and China National Packaging Import & Export. In Shanghai—a modern city still reflecting the European influence that dominated it until the beginning of World War II—Mr. Grace met with the Vice Mayor of the City Administration and the Director of Shanghai Trust & Investment.

"I am confident that the Chinese people are making a Herculean effort to achieve a major breakthrough, and we ought to help them," said Mr. Grace. He observed that China is intent on modernizing and upgrading the standard of living of its one billion inhabitants.

China, with its vast mineral resources, is looking to the West for assistance in technology, management expertise, capital investment and a system of trade that will help generate much needed foreign currency.

"The West is also aware of the great potential of China's abundant natural resources and the talents of its people," Mr. Grace pointed out. "This adds up to broad mutual interests between the people of China and those of the world's industrialized democracies."

Opportunities Studied

As a result of the discussions and exchange of ideas, Grace group executives are exploring specific opportunities. Some of the prospects involve increased Chinese manufacture and



Mr. Grace makes friends in Shanghai.

export of sporting goods for retail activities, and Chinese import of construction products and container and packaging machinery in the specialty chemical sector. Also, the Natural Resources Group is looking into petroleum exploration and oil field services, and assistance in China's production of paper from bagasse (sugarcane fibers).

Interest in artificial insemination and animal feed has led to a Grace invitation for a Chinese delegation from Inner Mongolia to study the techniques of Grace's agricultural chemical operations in the United States.

Of immediate interest in Beijing are

construction products and container compounds. Grace's quality construction products would help to build offices, hotels and some industrial installations. Because the Chinese export food as a quick way to bring in hard currency, it will be essential to build a canning industry. But before they are able to use a sophisticated can sealing compound, they must upgrade their packaging equipment.

With an estimated trade deficit of \$1.8 billion in 1980 and urgent need for capital goods imports, the Chinese are emphasizing investment that will result in export earnings.

Other Far East Projects

Far East business activities are not new to Grace. For example, the People's Republic of China has purchased construction materials supplied by *Pacific-Interamerican Division* to waterproof joints in concrete buildings. It has also purchased *Bituthene* waterproofing membrane to line commercial shrimp ponds in Tianjin, third largest city in the People's Republic of China.

Bituthene waterproofing and *Darex* concrete admixtures are being used in Singapore's new Changi International Airport and the Hong Kong mass transit railway. Bituthene applications are also used in the construction of the Seoul, Korea subway.

Nikkan Sports Shimbun, Japan's largest daily sports newspaper, has converted to *Letterflex* printing plates marketed by *W.R. Grace K.K.*, Grace's wholly owned subsidiary in Japan. This subsidiary has also formed a 50 percent-owned company to make textile printing blankets and distribute them in Japan and Southeast Asia.

Mitsubishi Electric Company awarded *Emerson & Cuming*, a Grace subsidiary, a contract to design the world's largest shielded anechoic chamber which Japan's National Air & Space Defense Administration will use to test satellites.

基利士有限公司
太平洋區執行副總裁
肯威廉

Our Card...

TV Ad Increases Public Awareness Of Grace



Shouldn't you look into Grace?



Grace embarked on an image-building TV advertising campaign in 1980. The ad features a stockholder who has "looked into Grace" and discovered that the Company has "more than tripled its net income in just 10 years and paid dividends for the last 46 years." The spokesman then asks the viewer, "Shouldn't *you* look into Grace?"

The 30-second TV spot portrays Grace as an aggressive, diversified growth company with balanced interests in chemicals, natural resources and consumer products.

The ad was market-tested in New York and Atlanta for 13 weeks. Audience awareness of Grace grew significantly in these two cities with the result that more commercials have been produced and will be aired in 1981 in selected U.S. markets.

Increased Productivity: Key to Cutting Costs

"Output over input; what you get out of what you put in"—that is the way President J. Peter Grace defines productivity, a decisive measure of business success. Despite its importance to industry, however, U.S. productivity is now pressed by recession, insufficient capital investment and rising regulatory costs.

Constantly striving to boost its own productivity levels, Grace has made use of 116 computers worldwide funded by an annual budget of \$50 million.

Divisions Upgrade Output

A good example is *Davison Chemical Division's* alumina sphere facility in Curtis Bay, Maryland. Now computer-controlled for batch sequencing, this plant can alert operators to trouble at 1,000 control points.

Grace's *Cryovac Division* is doing its part by combining certain tasks into single jobs and tying compensation to production in its manufacturing plants.

Retailers are making increased use of cash register readings to record sales information by time of day. These facts can tell home centers, for example, that most contractors buy during early morning hours, allowing stores to staff accordingly.

Part of the productivity package is office automation; word processors and copiers deliver information faster.

Seven years ago, Carl N. Graf, now a Grace executive vice president and sector executive, began upgrading productivity in Grace's European chemical operations by consolidating and improving manufacturing processes. The result was a doubling of sales with only a minimal increase in employees.

People Are Key

Mr. Grace emphasizes that the reason for the Company's success in productivity is people. He strives to "have the best and keep them working for us."

In natural resources, Grace reached its position in the oil and gas industry mainly through effective employee incentives. An updated, long-range program, now being completed, is expected to match the success of the group's original five-year incentive plan.

"In the next 10 years it will be harder to find and hold good people," asserts Mr. Grace. "We're going to see a new kind of manager, more professional at motivating people, and skilled at resolving the apparent conflict between a generation that wants immediate satisfaction and a business that must increase productivity at all levels. It will require a new view of compensation, an understanding of new life goals and a comprehension of how work can be made more rewarding."

Grace Borrows \$100 Million On Medium-Term Notes

Grace made a public offering of \$100 million of 12½ percent 10-year notes last September. Proceeds from the sale of the notes were used to repay borrowings under revolving credit agreements which were incurred to finance capital expenditures and to provide working capital. Investors purchased 90 percent of the issue on the day it was offered.

"This partially took care of our financing needs for 1980 and 1981, but we might seek more financing in 1981," says President J. Peter Grace. "Despite the new capital lift, our debt ratio including capitalized leases is just below 40 percent, which is about where we plan to keep it."

Grace's capital spending was at a record \$657 million in 1980 and is expected to be slightly higher in 1981.

Company Works on Synfuel Projects

Grace has started a project to study the feasibility of producing synthetic fuel from its northwestern Colorado coal reserves acquired since 1973. The project was developed with Energy Transition Corporation (ETCO), a group of energy specialists experienced in business and government.

The Grace/ETCO synthetic fuel project would include joint-venture participants who would operate a plant to produce, after a phased buildup program, 5,000 tons of fuel-grade methanol and 6,000 tons of carbon dioxide daily from coal.

In another synfuel development, *Davison Chemical Division* has entered an agreement to supply 40,000 pounds of *Amocat-IA* catalysts to Ashland Synthetic Fuels, Inc. for use in the world's largest direct coal liquefaction pilot plant, located in Catlettsburg, Kentucky. Using the H-Coal process to be licensed from Hydrocarbon Research, Inc., coal reacts with hydrogen in the presence of catalysts to produce either boiler fuel or synthetic crude oil. These catalysts were first developed by Grace's *Research Division*.

Grace is also studying the feasibility of a synthetic fuel project to convert coal into high-octane, unleaded gasoline.

The Company is expected to complete preliminary design and assessment of a coal liquefaction plant by 1983. The Department of Energy is to fund the design cost. A team of Grace engineers at Agricultural Chemicals Group headquarters in Memphis will manage plant design.

■ Grace's U.S. chemical operations cut energy use an average 22 percent per unit of output for the year ended June 1980 compared with 1972. "Conservation will be a major issue for many years," says George W. Blackwood, vice chairman. "We will continue to restrain consumption and costs."

Grace Executives Address Analysts

"The Company looks forward to the next five years as a period of stability in which no major deviation from the current business mix will take place," J. Peter Grace, president and chief executive officer, told a special Wall Street meeting of the New York Society of Security Analysts in November.

Carl N. Graf



Mr. Grace said the specialty chemical business is solid and growing. Carl N. Graf, a Grace executive vice president and sector executive, anticipated that sales in this area would exceed \$3.5 billion by 1985. He also noted that the *Organic Chemicals Division* is investing \$80 million for three new plants in Deer Park, Texas.

The Agricultural Chemicals Group is having an excellent year in 1980 with improved pricing for nitrogen and

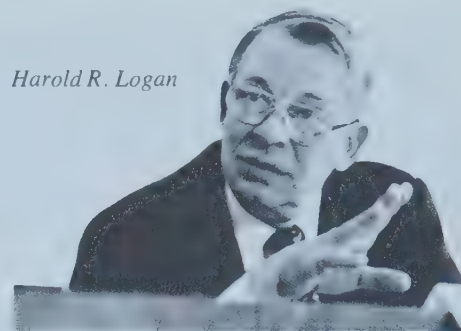
Charles H. Erhart, Jr.



phosphate fertilizers, added Mr. Grace. "We expect the AgChem Group will earn in excess of \$100 million in operating income after taxes in 1981," he said.

The Natural Resources Group continued to increase its contribution to Grace's operating income after taxes, having climbed from six percent in 1975 to 29 percent in 1980, reported Harold R. Logan, a Grace executive vice president and Natural Resources group exec-

Harold R. Logan



utive. He added that by 1985, Natural Resources sales are expected to reach about \$1.8 billion, more than double the \$690 million total of 1980.

In the consumer sector, Mr. Grace explained that up to now the Company had been concentrating on building a position in specialty retailing and had put less emphasis on bottom-line profits. "We're ultimately targeting this business to earn 15-20 percent on Grace capital," he said.

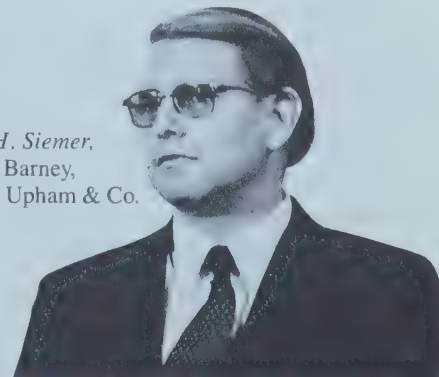
Robert H. Anderson



He noted that while Grace would have a 1980 loss in *Del Taco*, the problems of this Mexican fast food operation are being resolved.

"In the meantime, if you haven't tried our specialty dinnerhouses or coffee shops, you're missing the best in the industry," Mr. Grace concluded.

Fred H. Siemer,
Smith Barney,
Harris Upham & Co.



Taxes and Inflation—Company's Main Aims for Legislative Change

Concerned about high taxes and soaring inflation as disincentives to business and individuals, W. R. Grace & Co. has been working hard on a five-point program to stimulate the economy. Called "National Security and the Economy," the campaign is spearheaded by J. Peter Grace, president and chief executive officer, and this theme has figured prominently in the speeches he gives to civic organizations worldwide.

Believing strongly in the principle of private enterprise, the Company

government revenues by only 4.9 percent. In the process, economic activity would be greatly stimulated and the tax base expanded to quickly overcome revenue shortfalls.

3) Adjust all personal income and corporate profits for inflation before taxation. Only real gains would be taxed as opposed to nominal gains brought about strictly by inflation; government revenues would no longer automatically benefit from inflation.

4) Eliminate the capital gains tax

work to sustain agricultural product prices in line with those of gold and oil in world markets.

The Incentive Message

In all of these areas, Grace's primary concern has been to create a favorable climate for increased investment, particularly in small companies—those employing fewer than 100 workers. These small companies account for about 82 percent of all new jobs. Inadequate savings and investment have been the root causes of lagging productivity, slow growth and persistent unemployment in this country.

Motivated in part by Grace's efforts, Congress passed The Revenue Act of 1978, which provided a major rollback in the capital gains tax from a maximum of 49.1 percent to a maximum of 28 percent. That was a major achievement, but inflation has worsened since then, throwing wage earners into higher tax brackets.

Bottom Line—Changing the Law

The Company believes that enacting legislation which would cut taxes through such means as individual rate reductions, indexing personal income to inflation, freezing Social Security rates and allowing realistic depreciation schedules on plant and equipment should be the 97th Congress's priority.

The 1980 elections changed the composition of the House and Senate significantly, producing a climate the Company expects will be more receptive to enacting measures designed to create jobs, reduce inflation, rationalize government spending and boost industrial production.

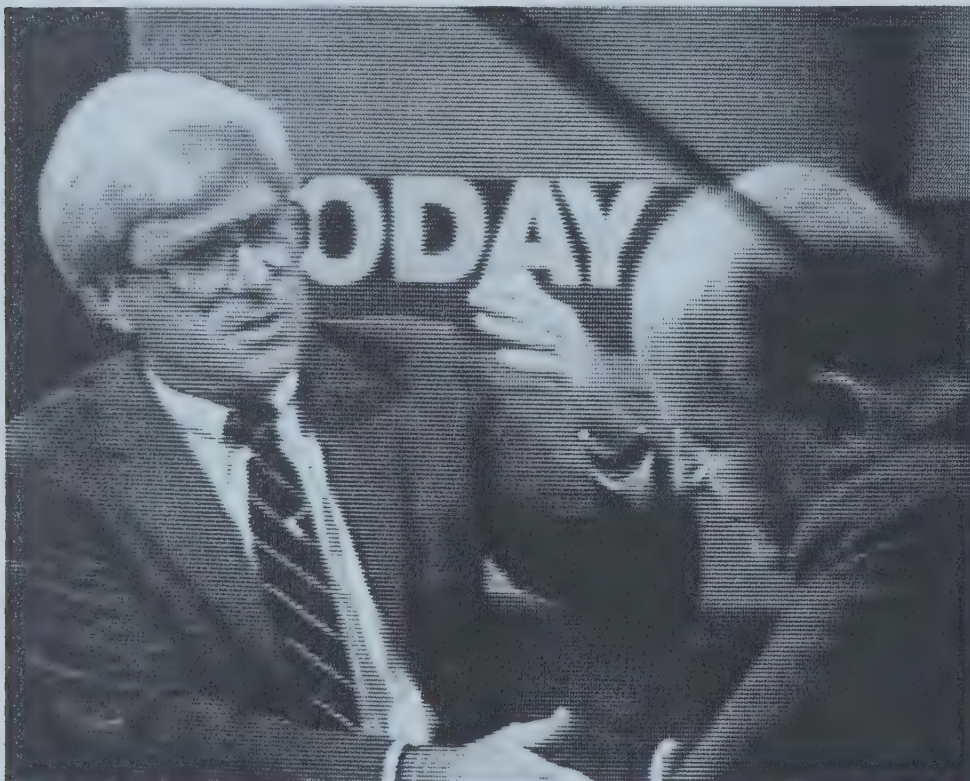
You can do your part by writing to your elected representatives in support of job-creating tax incentives and responsible fiscal policy. Address your letters to:

United States Senate

Washington, D.C. 20510 and/or

House of Representatives

Washington, D.C. 20515



J. Peter Grace was the guest of Phil Donahue on the "Donahue on Today Show."

stresses these major steps in advertisements, mailings and in Mr. Grace's speeches:

1) Balance the budget over the course of the business cycle. Halt net deficit spending over the cycle, the prime cause of a too rapidly expanding money supply in relation to real growth in goods and services—which ultimately leads to higher prices.

2) Cut the top personal income tax rate from 70 percent to 36 percent. This reduction in tax rates would cut

and thus get rid of this disincentive to investment. Countries that have no capital gains tax such as Japan and Germany—where economic growth has been exceptionally strong—provide convincing evidence of the benefits that accrue from a zero capital gains tax.

5) Manage agricultural exports to strengthen the U.S. economy. The United States, together with Canada, Australia and Argentina, controls more than 80 percent of the world's food grain exports. These countries should

Grace Archive Donated to Columbia University

A collection of W. R. Grace & Co.'s records and correspondence documenting its history as a former international trading company was given to Columbia University's Rare Book and Manuscript Library in the fall of 1980. The archive was presented at a ceremony marking the centennial of Company founder William Russell Grace's election as Mayor of New York City in 1880. Mayor Grace, grandfather of President J. Peter Grace, served a second term from 1884 to 1886.



This trolley car in Buenos Aires featured an ad for Grace Line.

The Grace collection covers the period from 1860 to 1920. It features letters, photographs, Grace family memorabilia and documents concerning New York politics. Also included are banking, insurance and real estate papers related to the Company's shipping business in New York and South America; mining activities in Peru and Chile; and transportation interests in Costa Rica and Nicaragua.

Michael I. Sovern, president of Columbia, accepted the papers from J. Peter Grace at a reception at India House in lower Manhattan, Grace's headquarters from 1885 to 1913.



W. R. Grace & Co. headquarters for 50 years was 7 Hanover Square (on left). India House (right foreground) served as head office prior to 1913.



Peter Grace enjoys a light moment with New York City's Mayor Ed Koch when the Grace Archive was donated to Columbia University.

F. E. Larkin, Grace Chairman, Receives National Brotherhood Award

Chairman Felix E. Larkin was honored by the National Conference of Christians and Jews (NCCJ) at its annual Major Industries Awards Dinner last October at the Pierre Hotel, New York.

Mr. Larkin was given the NCCJ's National Brotherhood Award "for dis-

tinguished service in the field of human relations" by the Rev. James C. Finlay, S.J., president of Fordham University.

After receiving his A.B. degree from Fordham in 1931, Mr. Larkin subsequently earned an M.B.A. from New York University Graduate School of

Business and a J.D. from St. John's University School of Law. In May 1978 Fordham conferred upon him an honorary Doctor of Laws degree.

Mr. Larkin is a trustee emeritus of Fordham, having served as chairman of its board from 1970 to 1977.

Environmental Parley for 60 Executives

Eighteen experts discussed policies and techniques for environmental protection at a three-day symposium attended by some 60 Grace executives in Tampa last October.

Among the topics covered were management policies on environmental issues, cooperation between industry and environmental groups, impact of new chemical processes on the environment, and pollution control.

"The Company wants to be and will be a responsible citizen in complying with applicable laws and regulations," Robert M. Coquillette told the audience. A Grace executive vice president and sector executive, he was one of many Company speakers. "We will abide by the law of the land...compliance is the aim."

This third annual training meeting is part of Grace's general commitment to environmental protection. Grace's environment-related capital expenditures were approximately \$15 million in 1980 and are expected to average \$32.5 million annually in 1981 and 1982.

Corporation, Foundation Donations Grow

Donations and grants from the Company and Grace Foundation, Inc. rose significantly in 1980, totaling \$3.6 million.

Corporate donations were awarded to New York City civic-boosting groups such as the Economic Development Council (a private/public coalition of concerned citizens dedicated to revitalizing New York); Avenue of the Americas Association (home of Grace's headquarters); the Urban League, and various trade associations and worldwide chambers of commerce in which Grace maintains corporate memberships.

About 100 charitable, civic and trade groups received Grace corporate gifts in 1980.

Grace Foundation, a tax-exempt organization for which the Company provides annual funding, boosted its contributions by more than 41 percent, including matching gifts for education.

With funds allocated by its board of directors, Grace Foundation concentrates its aid on higher education, health, science and social welfare, urban and minority affairs and culture. More than 40 percent of the Foundation's budget is earmarked for education.

Organizations which received funds from either the Company or the Foundation in 1980 included The Salvation Army, Boy Scouts of America, American Cancer Society, Young Women's Christian Association, Ear Research Institute, Marine Biological Laboratory and Brooklyn Academy of Music, among many others.

Equal Employment Opportunity Shows Gains by Women, Minorities

Grace continued to make EEO strides in 1980 by increasing the number of women and minorities who are employed by the Company. Figures reported to the government in 1980 show that these two groups represented 54 percent of Grace's total U.S. work force, up from 51 percent the previous year. In Grace's managerial and professional ranks, the proportion of women and minorities also continued to rise. Together, women and minorities now account for 25 percent of Grace's managers and professionals compared with 23 percent in 1979.

Sizing Up the Eighties

Just 10 years ago, strong and continuing economic growth appeared likely, and companies that planned according to the established industrial order seemed poised for almost unending sales and earnings expansion.

That optimism was tempered, if not destroyed, by the Arab oil embargo of 1973, an event whose long-term economic and political waves have yet to run their course. In its wake have come slow economic growth and high inflation. Old growth strategies—for example, those that assumed the ready availability of cheap energy and equally abundant, low-cost money—are no longer applicable today.

Future Implications

In the complex setting confronting business in the 1980s, growth itself must be redefined. In the relatively low inflation scenarios of the early 1970s, business plans which called for earnings increases of 10-12 percent a year were valid. With today's sustained inflation rates in excess of 10 percent, the old assumptions are defunct. Real growth today means planning for—and getting—consistent earnings increases of 15 percent or more.

One notion true in 1970 remains the same today: Big rewards require big risks. Because bigger rewards are the goals that must be sought by business in the 1980s, bigger risks must be taken. Projects must be more carefully weighed and more carefully chosen than ever before. The subtle distinction between caution and withdrawal must be clearer to managers—with each decision they make—than previously required. There is no substitute for steady wisdom in such an environment no matter how great the technical mastery. Regardless of the business conditions presented by the 1980s, no wavering should be permitted from management's commitment to continued growth in all areas of the Company's activities.

Nineteen eighty-one finds Grace the fifth largest chemical firm overall, and number one in specialty chemicals. Grace has significant holdings in oil and coal, which have only begun to be realized upon in terms of potential profitability. Earnings per share have risen almost tenfold since the last "easy" year, 1970.

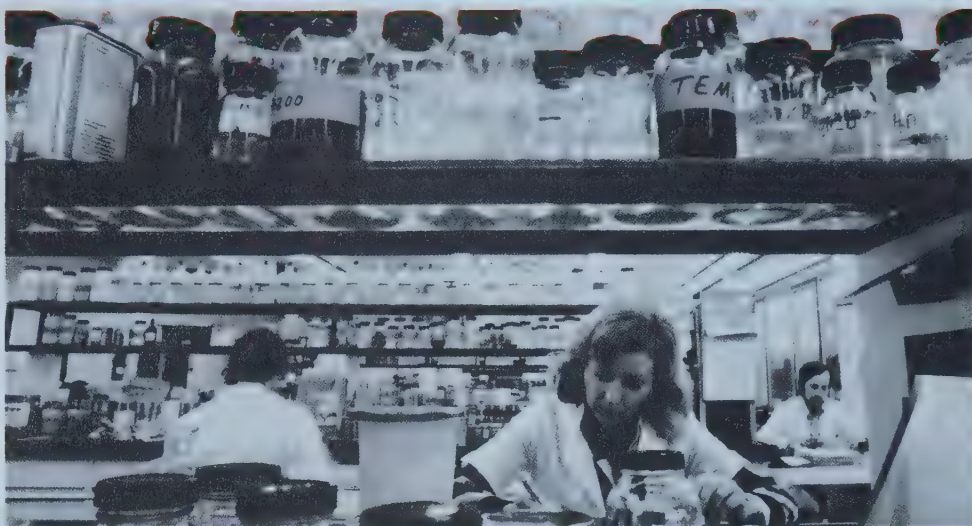
With an uncertain outlook for the economy in the 1980s, forecasts are difficult. However, the underlying strength of the many businesses in which Grace is a leader should provide strong support for increased earnings in future years and assure the realization of the Company's commitment to growth.



This is Grace

Chemicals

A worldwide network of production, marketing and research facilities supports Grace's industrial, specialty and agricultural chemical businesses. Proprietary technology, expert customer service and efficient production and distribution provide the foundation for the specialty chemical business. Products are sold for both industrial processing applications and specific end uses. Agricultural chemical operations include the production of phosphate- and nitrogen-based fertilizers as well as animal breeding and feed products and services.



Natural Resources

Grace's energy investments are geared to the exploration and production of crude oil and gas, production of coal, the operation of contract drilling and workover rigs—both on and offshore—oil field services and rental tools and equipment for the petroleum industry. Other businesses include the storage and transmission of bulk liquids, the manufacture of paper products, and rental and sale of equipment to industry and homeowners.



Consumer

Specialty retailing and restaurants are the focus of Grace's consumer service operations. Selective merchandising combined with distinctive selling formats are the common denominators in retailing jewelry, sporting goods, leisure apparel and home improvement products. Grace restaurants offer over forty different formats ranging from fast food and coffee shops to dinner-houses and theme restaurants. Other consumer businesses include cocoa processing, automotive products, specialty textiles and book distribution.



Specialty Markets	Products & Trademarks	Specialty Markets	Products & Trademarks	Agricultural Markets	Products & Trademarks
Packaging	<i>Cryovac</i> plastic films/bags <i>Airmold</i> containers	General Industry	<i>Syloid</i> silica gel <i>Davison</i> molecular sieves <i>Eccobond</i> adhesives/coatings Cleaning compounds	Animal Husbandry	<i>ABS</i> animal genetics <i>Walnut Grove</i> and <i>Farr Better</i> feeds
Construction	<i>Zonolite</i> insulation <i>Compliant Roof Membranes</i> <i>Bituthene</i> waterproofing <i>Darex</i> cement additives	Chemical Intermediates	<i>Evans</i> sulfur compounds <i>Daxad</i> dispersants <i>Daratak</i> emulsion polymers <i>Hampshire</i> HCN derivatives Pharmaceutical & herbicidal intermediates	Crop Production	Phosphate & nitrogen-based fertilizers
Automotive	<i>Teroson</i> acoustical materials <i>Daramic</i> battery separators <i>Terolan</i> adhesives/sealants <i>Davison</i> auto catalysts	Graphic Arts	<i>Letterflex</i> printing systems <i>Polyfibron</i> printing blankets <i>TEC</i> web offset dryers	Chemed Markets	Products & Trademarks
Container	<i>Darex</i> sealing compounds			Environment	<i>Dearborn</i> pollution control, water & waste treatment
Oil & Gas	<i>Davison</i> cracking catalysts Rare earths/gas adsorbents <i>Eccofloat</i> flotation modules			Health Care	<i>Veratex</i> dental/medical supplies Respiratory therapy
				Hospital Services	<i>Vestal</i> disinfectants <i>DuBois</i> cleaning compounds

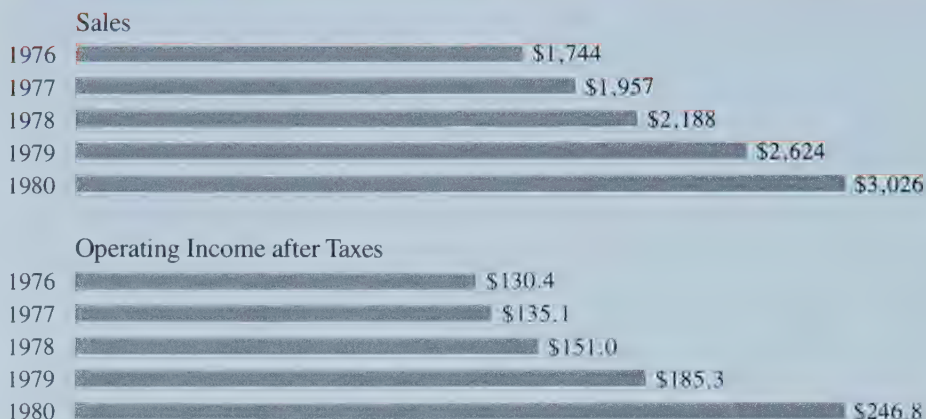
Extractive	Products	Oil Field Services	Products & Services
Production, Development & Exploration	Coal, oil & natural gas	Technical Services	<i>TRG</i> contract drilling <i>Homco & A-1 Bit & Tool</i> oil field services <i>Booker Drilling</i> offshore rigs <i>Rent-It</i> equipment rental & sale <i>ST Services</i> storage & pipeline facilities <i>Drilling Mud</i> supplies <i>Chance</i> drill collars <i>Lighting Systems International</i> electrical cables & lighting systems <i>Southern Flow</i> gas metering

Specialty Retailing	Formats	Restaurants	Formats	Other	Products & Trademarks
Home Centers	<i>Allwoods</i> <i>Angels</i> <i>Cashway</i> <i>Channel</i> <i>Handy City</i> <i>Handy Dan</i> <i>Orchard</i>	Coffee Shops	<i>Coco's</i> , <i>jojós</i>	Auto Parts	<i>Mr. Gasket</i> clutches & shifters
		Fast Food	<i>Del Taco</i>	Book Distribution	<i>Baker & Taylor</i>
		Dinnerhouses	<i>Moonraker</i> , <i>Reuben's</i> <i>Plankhouse</i>	Cocoa Products	<i>Ambrosia</i> <i>DeZaan</i>
		Mexican	<i>El Torito</i>	Specialty Textiles	<i>Bekaert</i> upholstery fabrics <i>Golding</i> mattress ticking
Sporting Goods	<i>Herman's World of Sporting Goods</i>	Specialty	<i>Baxter's</i> <i>Chanteclair</i> <i>McFadden's</i> , <i>Dunbar's</i>		
Jewelry	<i>J. B. Robinson Jewelers</i>	Healthy Food	<i>Jennie's Cookery</i>		
Leisure Apparel	<i>Bermans</i> leather apparel <i>Sheplers</i> western wear <i>Diana</i> women's wear	Theme	<i>Annie's Santa Fe</i> <i>Houlihan's Old Place</i> <i>Reuben E. Lee</i> , <i>Gorda Liz</i> <i>Sam Wilson's Meat Market</i>		

1981 Outlook

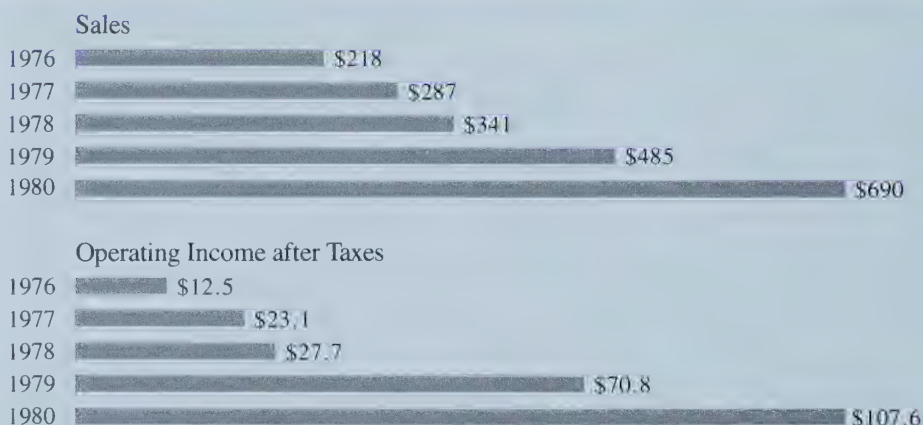
Chemicals

Anticipated economic recovery will help Grace's multi-industry specialty chemical product lines to achieve gains in sales and earnings this year. In addition, new plant construction and expansions of existing facilities are underway to provide more capacity. Good prospects for gains by the agricultural chemical business are enhanced by more planted acreage, higher farm income and increasing demand for food crops and fertilizers. *Chemed's* water treatment and health care lines are expected to do particularly well.



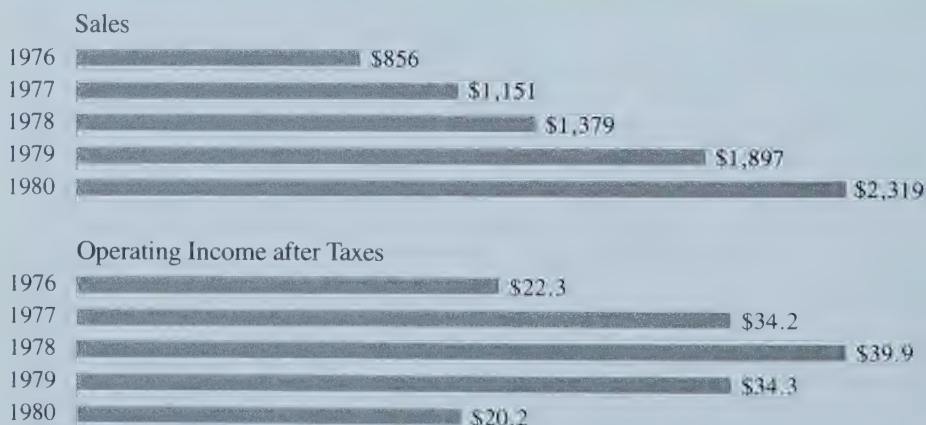
Natural Resources

Internal expansion in energy-related businesses will continue in 1981. Higher oil and gas production, greater output of coal and the addition of more locations and equipment to oil field service businesses are expected. The search for acquisitions in energy services and eastern coal will continue. Grace's Natural Resources Group anticipates higher demand for all forms of fuel, increasing energy prices and intensified exploration and development of domestic sources of petroleum and natural gas.



Consumer

As consumer confidence builds, higher spending on durables and nondurables can be expected. The unique strengths of Grace's specialty retailing concept will benefit most operations—particularly home centers, jewelry and leisure apparel stores. Continued expansion and improvement of the Company's restaurant chains should produce a turnaround in results of this line of business. Other consumer interests look for earnings advances during 1981.



Financial Data by Line of Business 1976-1980

(\$ millions—1976-1979 restated)

W. R. Grace & Co. and Subsidiary Companies

	Chemical				Natural Resources	Consumer				Total Operations	Divestment Program ⁽²⁾	Grace
	Specialty	Chemed	Agricultural	Total Chemical		Specialty Retailing	Restaurant	Other	Total Consumer			Total
Sales												
1976	\$1,076	\$219	\$449	\$1,744	\$218	\$ 237	\$165	\$454	\$ 856	\$2,818	\$976	\$3,794
1977	1,220	248	489	1,957	287	376	194	581	1,151	3,395	793	4,188
1978	1,382	282	524	2,188	341	470	242	667	1,379	3,908	566	4,474
1979	1,656	322	646	2,624	485	891	320	686	1,897	5,006	292	5,298
1980	1,896	363	767	3,026	690	1,086	525	708	2,319	6,035	66	6,101

Average Annual Growth Rate

1976-1980	15.2%	13.5%	14.3%	14.8%	33.4%	46.3%	33.6%	11.7%	28.3%	21.0%	—	12.6%
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Operating Income (Loss) after Taxes⁽¹⁾

1976	\$ 81.2	\$13.4	\$35.8	\$130.4	\$ 12.5	\$ 8.6	\$ 7.2	\$ 6.5	\$22.3	\$165.2	\$23.6	\$188.8
1977	93.5	16.0	25.6	135.1	23.1	13.7	7.4	13.1	34.2	192.4	14.9	207.3
1978	108.3	17.4	25.3	151.0	27.7	14.8	7.8	17.3	39.9	218.6	7.3	225.9
1979	132.4	19.8	33.1	185.3	70.8	19.3	3.0	12.0	34.3	290.4	.5	290.9
1980	140.1	21.5	85.2	246.8	107.6	22.4	(11.2)	9.0	20.2	374.6	(4.8)	369.8

Average Annual Growth Rate

1976-1980	14.6%	12.5%	24.2%	17.3%	71.3%	27.0%	—	8.5%	(2.4)%	22.7%	—	18.3%
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Sales
Percent of Total Operations

1976	38%	8%	16%	62%	8%	8%	6%	16%	30%	100%
1977	36	7	15	58	8	11	6	17	34	100
1978	36	7	13	56	9	12	6	17	35	100
1979	33	6	13	52	10	18	6	14	38	100
1980	31	6	13	50	11	18	9	12	39	100

Operating Income (Loss) after Taxes
Percent of Total Operations

1976	49%	8%	22%	79%	8%	5%	4%	4%	13%	100%
1977	49	8	13	70	12	7	4	7	18	100
1978	49	8	12	69	13	6	4	8	18	100
1979	46	7	11	64	24	7	1	4	12	100
1980	37	6	23	66	29	6	(3)	2	5	100

⁽¹⁾ **Operating Income (Loss) after Taxes** is computed before gains (losses) on disposal of businesses, foreign currency translation related to FAS No. 8 and allocation of general corporate overhead, general corporate interest and interest on debt of certain domestic subsidiaries. For this table, taxes are computed substantially on a separate return basis for each subsidiary and division of Grace. In the case of each U.S. subsidiary and division, benefits for all generated investment tax credits and operating losses, if any, are recognized currently.

⁽²⁾ Represents the sales and operating income (loss) after taxes of units disposed of and units for which provision for loss on future disposal has been recorded.

Quarterly Summary⁽¹⁾—Unaudited (dollar amounts in millions except per share)

Operating Results	First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
	1980	1979	1980	1979	1980	1979	1980	1979
Sales	\$1,365.9	\$1,167.0	\$1,545.2	\$1,358.8	\$1,491.2	\$1,291.5	\$1,699.0	\$1,480.3
Cost of goods sold and operating expenses	(887.5)	(789.7)	(1,005.5)	(909.3)	(967.1)	(842.9)	(1,109.7)	(953.8)
Other expenses, net	(367.2)	(309.4)	(385.0)	(335.5)	(408.8)	(342.7)	(467.7)	(405.4)
Income before taxes and effect of FAS No. 8 and disposal of businesses	111.2	67.9	154.7	114.0	115.3	105.9	121.6	121.1
Income taxes	(54.9)	(31.6)	(55.4)	(51.9)	(51.4)	(45.9)	(50.5)	(56.8)
Income before effect of FAS No. 8 and disposal of businesses	56.3	36.3	99.3	62.1	63.9	60.0	71.1	64.3
Effect of FAS No. 8	8.9	3.8	(12.6)	(3.0)	7.8	(.8)	(.6)	.9
Gains (losses) on disposal of businesses	—	17.1	(3.5)	2.0	(3.7)	(14.7)	(3.1)	.8
Net income	<u>\$ 65.2</u>	<u>\$ 57.2</u>	<u>\$ 83.2</u>	<u>\$ 61.1</u>	<u>\$ 68.0</u>	<u>\$ 44.5</u>	<u>\$ 67.4</u>	<u>\$ 66.0</u>
Earnings per share:								
Income before effect of FAS No. 8 and disposal of businesses	\$ 1.21	\$.80	\$ 2.13	\$ 1.36	\$ 1.37	\$ 1.32	\$ 1.52	\$ 1.40
Effect of FAS No. 8 .....	.19	.08	(.27)	(.06)	.16	(.02)	(.01)	.02
Effect of disposal of businesses	—	.38	(.07)	.04	(.08)	(.32)	(.07)	.01
	<u>\$ 1.40</u>	<u>\$ 1.26</u>	<u>\$ 1.79</u>	<u>\$ 1.34</u>	<u>\$ 1.45</u>	<u>\$.98</u>	<u>\$ 1.44</u>	<u>\$ 1.43</u>
Earnings per share assuming full dilution	<u>\$ 1.36</u>	<u>\$ 1.20</u>	<u>\$ 1.73</u>	<u>\$ 1.28</u>	<u>\$ 1.42</u>	<u>\$.94</u>	<u>\$ 1.40</u>	<u>\$ 1.37</u>

Sales by Line of Business

Chemical								
Specialty/Chemed	\$ 515.7	\$ 425.9	\$ 560.9	\$ 486.3	\$ 561.5	\$ 503.5	\$ 620.3	\$ 562.3
Agricultural	159.1	131.5	236.5	195.3	169.3	149.1	202.3	170.3
Natural Resources	163.8	94.0	158.6	108.2	178.0	134.9	190.0	147.9
Consumer								
Specialty Retailing	207.0	154.6	262.6	220.7	264.8	218.5	351.9	296.9
Restaurant	121.6	69.9	132.5	78.0	136.0	83.1	135.3	88.9
Other	177.9	173.2	174.1	157.5	161.9	161.2	193.8	194.3
Total Operations	1,345.1	1,049.1	1,525.2	1,246.0	1,471.5	1,250.3	1,693.6	1,460.6
Divestment Program ⁽²⁾	20.8	117.9	20.0	112.8	19.7	41.2	5.4	19.7
	<u>\$1,365.9</u>	<u>\$1,167.0</u>	<u>\$1,545.2</u>	<u>\$1,358.8</u>	<u>\$1,491.2</u>	<u>\$1,291.5</u>	<u>\$1,699.0</u>	<u>\$1,480.3</u>

Operating Income (Loss) after Taxes by Line of Business⁽³⁾

Chemical								
Specialty/Chemed	\$ 35.9	\$ 28.4	\$ 42.1	\$ 38.7	\$ 39.7	\$ 43.3	\$ 43.9	\$ 41.8
Agricultural	13.6	3.3	39.1	11.1	12.7	8.6	19.8	10.1
Natural Resources	23.9	11.5	28.9	16.0	27.1	23.6	27.7	19.7
Consumer								
Specialty Retailing	(2.1)	(1.5)	5.1	4.6	4.9	3.0	14.5	13.2
Restaurant	—	.7	(.5)	1.7	(1.0)	1.2	(9.7)	(.6)
Other	(.4)	5.3	4.0	3.5	1.2	1.4	4.2	1.8
Total Operations	70.9	47.7	118.7	75.6	84.6	81.1	100.4	86.0
Divestment Program ⁽²⁾	(.5)	3.2	(.4)	.7	(1.9)	(.9)	(2.0)	(2.5)
	<u>\$ 70.4</u>	<u>\$ 50.9</u>	<u>\$ 118.3</u>	<u>\$ 76.3</u>	<u>\$ 82.7</u>	<u>\$ 80.2</u>	<u>\$ 98.4</u>	<u>\$ 83.5</u>

⁽¹⁾ Data for all periods in 1979 and First Quarter 1980 have been restated for poolings of interests, all of which were completed prior to the end of Second Quarter 1980.

⁽²⁾ Represents the sales and operating income (loss) after taxes of units disposed of and units for which provision for loss on future disposal has been recorded.

⁽³⁾ Operating Income (Loss) after Taxes is computed before gains (losses) on disposal of businesses, foreign currency translation related to FAS No. 8, and allocation of general corporate overhead, general corporate interest and interest on debt of certain domestic subsidiaries.

Financial and Statistical Review (1979 and 1978 restated)

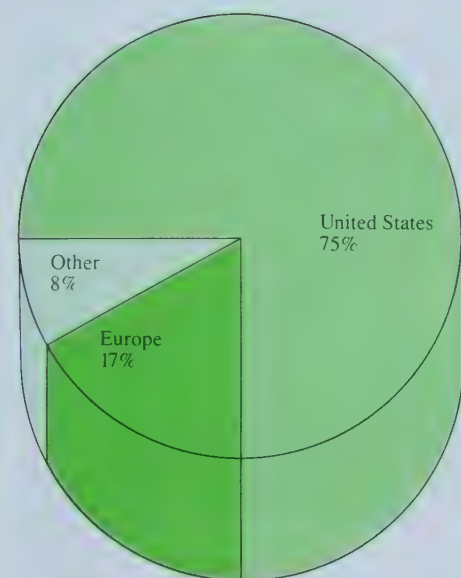
Worldwide Operations

The following table provides a geographic breakdown of sales and operating income (loss) after taxes in 1980, 1979 and 1978 by line of business:

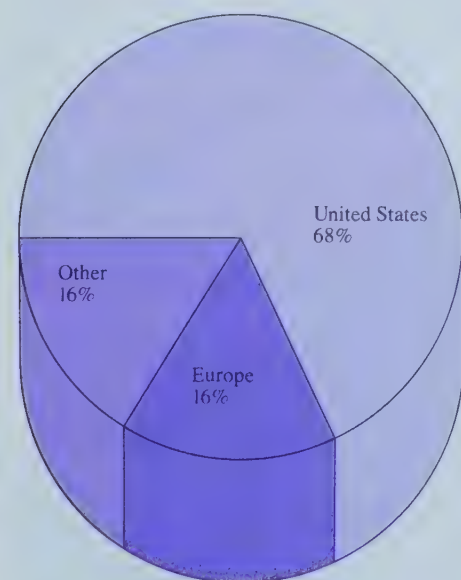
(\$ millions)	Sales			Operating Income (Loss) after Taxes ⁽¹⁾		
	1980	1979	1978	1980	1979	1978
United States						
Chemical						
Specialty/Chemed	\$1,231	\$1,083	\$ 949	\$ 83.9	\$ 79.4	\$ 76.5
Agricultural	700	578	466	69.3	29.1	19.0
Total Chemical	1,931	1,661	1,415	153.2	108.5	95.5
Natural Resources	540	349	259	93.7	49.0	21.0
Consumer						
Specialty Retailing . . .	1,086	891	470	22.4	19.3	14.8
Restaurant	525	320	242	(11.2)	3.0	7.8
Other	417	407	376	(2.6)	3.2	5.0
Total Consumer	2,028	1,618	1,088	8.6	25.5	27.6
Total United States	4,499	3,628	2,762	255.5	183.0	144.1
Canada						
Chemical	83	71	62	8.0	7.3	2.4
Natural Resources	19	13	8	3.6	2.7	1.2
Total Canada	102	84	70	11.6	10.0	3.6
Europe						
Chemical						
Specialty/Chemed	754	662	513	49.8	49.5	31.6
Agricultural	5	7	3	—	—	—
Total Chemical	759	669	516	49.8	49.5	31.6
Consumer	284	272	285	11.6	8.0	11.8
Total Europe	1,043	941	801	61.4	57.5	43.4
Latin America, Far East and Other Areas						
Chemical						
Specialty/Chemed	192	163	141	19.9	16.0	15.2
Agricultural	61	60	54	15.9	4.0	6.3
Total Chemical	253	223	195	35.8	20.0	21.5
Natural Resources	131	123	74	10.3	19.1	5.5
Consumer	7	7	6	—	.8	.5
Total Latin America, Far East & Other Areas	391	353	275	46.1	39.9	27.5
Total Operations	6,035	5,006	3,908	374.6	290.4	218.6
Divestment Program ⁽²⁾	66	292	566	(4.8)	.5	7.3
Total	\$6,101	\$5,298	\$4,474	\$369.8	\$290.9	\$225.9

Grace's net investment in operations outside of the United States was \$467.7 million in 1980, \$409.3 million in 1979, and \$478.8 million in 1978, an increase (decrease) of \$58.4 million, or 14.3% in 1980 and \$(69.5) million, or (14.5)% in 1979.

Sales 1980*



Operating Income after Taxes 1980*



* Excludes divestment program

⁽¹⁾ Operating Income (Loss) after Taxes is computed before gains (losses) on disposal of businesses, foreign currency translation related to FAS No. 8 and allocation of general corporate overhead, general corporate interest and interest on debt of certain domestic subsidiaries.

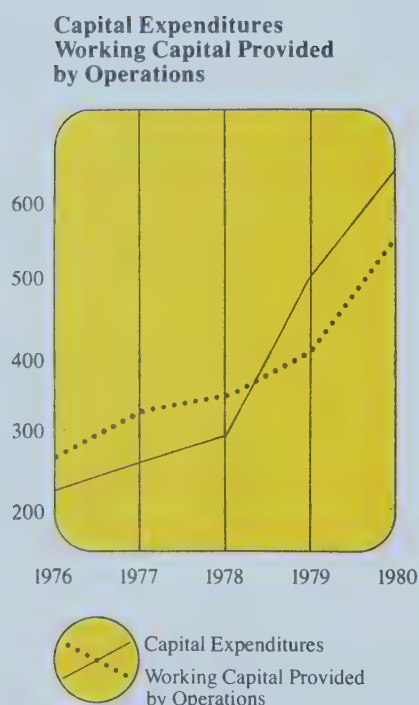
⁽²⁾ Represents the sales and operating income (loss) after taxes of units disposed of and units for which provision for loss on future disposal has been recorded.

Capital Expenditures, Net Fixed Assets, and Depreciation, Depletion and Lease Amortization

The following table shows capital expenditures, net fixed assets, and depreciation, depletion and lease amortization by line of business and by geographic location for 1980, 1979 and 1978:

(\$ millions)	Capital Expenditures			Net Fixed Assets			Depreciation, Depletion and Lease Amortization		
	1980	1979	1978	1980	1979	1978	1980	1979	1978
By Line of Business									
Chemical									
Specialty	\$134	\$108	\$ 85	\$ 493	\$ 412	\$ 349	\$ 51	\$ 45	\$ 43
Chemed	10	11	6	45	38	30	4	3	3
Agricultural	27	18	18	210	236	247	27	28	26
Total Chemical ..	171	137	109	748	686	626	82	76	72
Natural Resources	321	165	94	708	450	334	63	51	53
Consumer									
Specialty Retailing ..	64	67	34	287	229	105	19	14	7
Restaurant	89	122	46	333	217	110	26	13	9
Other	9	11	9	49	51	48	7	6	6
Total Consumer ..	162	200	89	669	497	263	52	33	22
Total Operations	654	502	292	2,125	1,633	1,223	197	160	147
General Corporate	2	1	1	14	14	11	2	1	1
Divestment Program* ..	1	8	15	24	43	87	5	8	13
Total	<u>\$657</u>	<u>\$511</u>	<u>\$308</u>	<u>\$2,163</u>	<u>\$1,690</u>	<u>\$1,321</u>	<u>\$204</u>	<u>\$169</u>	<u>\$161</u>
By Geographic Location									
United States	\$574	\$454	\$251	\$1,857	\$1,414	\$1,022	\$168	\$132	\$122
Canada	8	3	3	23	17	16	1	2	1
Europe	59	36	30	189	149	131	19	17	16
Latin America, Far East and Other Areas	13	9	8	56	53	54	9	9	8
Total Operations	654	502	292	2,125	1,633	1,223	197	160	147
General Corporate	2	1	1	14	14	11	2	1	1
Divestment Program* ..	1	8	15	24	43	87	5	8	13
Total	<u>\$657</u>	<u>\$511</u>	<u>\$308</u>	<u>\$2,163</u>	<u>\$1,690</u>	<u>\$1,321</u>	<u>\$204</u>	<u>\$169</u>	<u>\$161</u>

* Represents units disposed of and units for which provision for loss on future disposal has been recorded.



Major capital expenditure projects undertaken in 1980 included: purchase of new drilling rigs; construction of three specialty chemical plants in Deer Park, Texas; domestic and foreign expansion of flexible packaging materials operations; construction of a new plant at Selestat, France and expansion of the existing facility at Hamburg, West Germany for the production of battery separators; purchase, exploration and development of coal, oil and natural gas producing properties; and specialty retailing and restaurant expansion programs.

Major capital expenditure projects undertaken in 1979 included: construction of alumina and three-way auto catalyst plant in Curtis Bay, Maryland; expansion of petroleum cracking catalyst manufacturing facilities in Lake Charles, Louisiana; purchase of drilling rigs; purchase and exploration of oil and natural gas producing properties; and specialty retailing and restaurant expansion programs.

Major capital expenditure projects undertaken in 1978 included: expansion of production capacity for flexible packaging materials in Iowa Park, Texas; equipment replacement and expansion of cocoa bean processing capacity at Koog aan de Zaan, Netherlands; construction of a battery separator plant at Acton, Massachusetts; purchase of oil and natural gas producing properties and equipment; and specialty retailing and restaurant expansion programs.

Grace expended approximately \$15 million, \$12 million and \$10 million for pollution control compliance in new and existing plant facilities during 1980, 1979 and 1978, respectively.

Grace estimates that capital expenditures in 1981 will be about \$700 million.

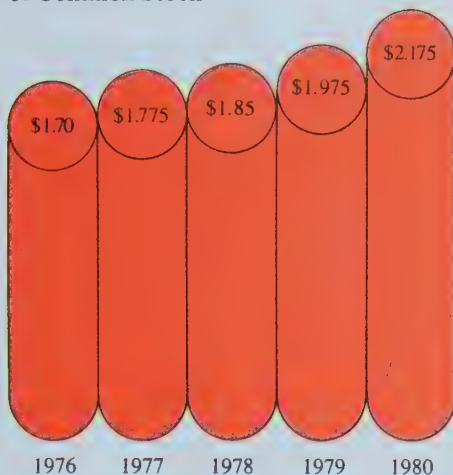
Stock Price Data—1980/1979/1978

Principal Market: Common Stock—New York Stock Exchange

Trading Symbol: GRA

		Common Stock Prices—Composite Trading		
		High	Low	Close
1980	First Quarter	\$43.625	\$32.625	\$34.375
	Second Quarter	39.25	33.25	38.875
	Third Quarter	52.00	38.25	47.00
	Fourth Quarter	63.50	47.25	59.00
1979	First Quarter	\$29.125	\$25.625	\$28.625
	Second Quarter	29.625	27.00	29.00
	Third Quarter	40.75	28.00	39.75
	Fourth Quarter	41.25	34.25	40.50
1978	First Quarter	\$27.125	\$23.625	\$25.625
	Second Quarter	29.00	25.375	27.00
	Third Quarter	31.00	26.25	29.875
	Fourth Quarter	32.375	25.625	25.875

Cash Dividends Paid Per Share of Common Stock



Dividends

For the years 1980, 1979 and 1978, common stock dividends were declared and paid to shareholders as follows:

	Record Date	Payment Date	Per Share
1980	February 7	March 10	\$ 0.5125
	May 8	June 10	0.5125
	August 7	September 10	0.575
	November 7	December 10	0.575
			<u>\$ 2.175</u>
1979	February 7	March 10	\$ 0.475
	May 8	June 10	0.475
	August 7	September 10	0.5125
	November 7	December 10	0.5125
			<u>\$ 1.975</u>
1978	February 8	March 10	\$ 0.45
	May 10	June 10	0.45
	August 9	September 10	0.475
	November 8	December 10	0.475
			<u>\$ 1.85</u>

Cash Dividends on Common Stock (\$ millions)



The current indicated annual dividend rate is \$2.30 per share.

The Company has paid dividends on its common stock consecutively since 1934, or 47 years, and intends to continue paying dividends in the future. In 1980, total dividends paid on common stock were \$101.1 million. This was a 16% increase over the \$86.9 million paid in 1979, which was a 20% increase over the \$72.3 million paid in 1978. As a percentage of net income, the common stock dividend payout was 35.6%, 38.0% and 41.1% for 1980, 1979 and 1978, respectively.

Dividend Reinvestment and Common Stock Purchase Plan

There were 11,390 shareholders of record participating in Grace's Dividend Reinvestment and Common Stock Purchase Plan as of December 1980 compared with 10,430 participants at the end of 1979. During 1980, Grace shareholders reinvested dividends and made supplementary cash payments totaling \$2.7 million which were used to purchase 61,043 shares of Grace common stock.

The Company absorbs all brokerage commissions and bank service fees for participants.

Key Financial Ratios—Five Years

		1980	1979	1978	1977	1976
Income Statement	% Pretax, pre-interest income to sales	10.3%	10.0%	9.4%	9.3%	8.7%
	% Net income to sales	4.7	4.3	3.9	3.6	3.6
	% Income taxes to pretax income	42.4	45.9	46.9	46.4	47.7
Balance Sheet	% Long term debt to total capital	35.2%	30.9%	31.7%	34.1%	36.0%
	% Total debt to total capital	42.4	40.7	41.4	42.2	45.1
	Current assets/current liabilities	1.5x	1.6x	1.8x	1.8x	1.8x
Profitability	% Return on total capital	9.6%	8.9%	7.5%	6.8%	6.4%
	% Return on shareholders' equity	16.8	15.2	13.1	12.1	11.9
Asset Turnover	Sales/inventories	7.7x	7.1x	6.6x	6.7x	6.4x
	Sales/receivables	8.2	7.7	7.4	7.7	7.5
	Sales/total assets	1.5	1.5	1.4	1.4	1.4
Cash Flow	% Cash flow to total debt	41.9%	37.9%	35.1%	36.0%	28.5%
	% Dividends to cash flow	18.1	20.5	20.3	19.7	21.8
Stock Market	Average yield	3.9%	5.2%	6.4%	6.5%	6.1%
	Year-end price/earnings (P/E)	9.7x	8.1x	6.5x	7.9x	9.4x
	Year-end price/book value	1.6	1.2	.8	.9	1.1

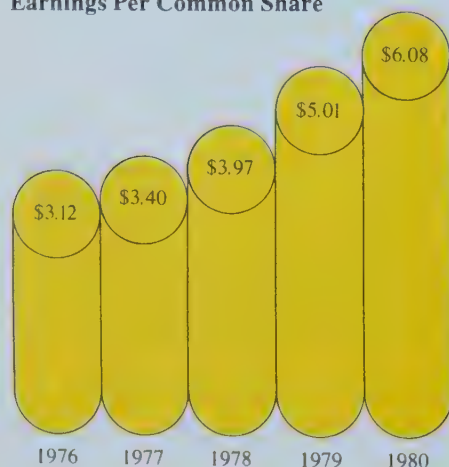
Employment Grace's employees numbered approximately 91,700 at the end of 1980 compared with 82,600 at the end of 1979 and 68,900 at the end of 1978. They were geographically located as follows:

		1980	1979	1978
<i>(Rounded to hundreds)</i>				
United States	Chemical	21,600	20,900	19,300
	Natural Resources	4,900	3,900	2,900
	Consumer	49,300	41,000	27,600
	Corporate Headquarters	800	800	800
Canada	Chemical	900	900	900
	Natural Resources	100	100	100
Europe	Chemical	8,300	8,300	7,900
	Consumer	2,000	1,900	2,000
Latin America, Far East & Other Areas	Chemical	3,300	3,300	3,200
	Consumer	300	400	300
	Total Operations	91,500	81,500	65,000
	Divestment Program*	200	1,100	3,900
	Total	91,700	82,600	68,900

* Represents units disposed of and units for which provision for loss on future disposal has been recorded.

Total 1980 employment costs, including salaries, wages, benefits and social security taxes, were \$1,453.2 million compared with \$1,242.6 million in 1979 and \$1,024.3 million in 1978.

Earnings Per Common Share



Comparative Quarterly Earnings—Five Years

The following table provides net income and earnings per share by quarter, as restated, for the five-year period 1976-1980:

Year	Net Income (\$ millions)				Earnings per Share			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
1976 . . .	\$ 29.8	\$ 45.9	\$ 30.6	\$ 30.5	\$.68	\$ 1.05	\$.70	\$.69
1977 . . .	26.5	49.8	39.1	33.9	.60	1.14	.89	.77
1978 . . .	37.1	54.5	44.5	39.7	.84	1.24	1.01	.88
1979 . . .	57.2	61.1	44.5	66.0	1.26	1.34	.98	1.43
1980 . . .	65.2	83.2	68.0	67.4	1.40	1.79	1.45	1.44

Sales by End Market*

	(\$ millions)	1980	1979	%Change
Packaging		\$ 550	\$ 473	16.3%
Construction		313	265	18.1
Automotive		189	191	(1.0)
Container		173	159	8.8
Oil and Gas		172	125	37.6
General Industry		148	139	6.5
Chemical Intermediates		140	129	8.5
Graphic Arts		138	121	14.1
Total		<u>\$1,823</u>	<u>\$1,602</u>	13.9%

* Does not include sales of all products and services categorized in Specialty Chemicals line of business.

Key Plant Locations
Worldwide by Division**Davison Chemical**

HQ: Baltimore, Md.
Plants: South Gate, Calif.
Lake Charles, La.
Baltimore, Md.
Valleyfield, Quebec
Chattanooga, Tenn.

Dewey & Almy Chemical

HQ: Lexington, Mass.
Plants: San Leandro, Calif.
Montreal, Quebec
Atlanta, Ga.
Canton, Mass.
Woodbury, N.J.

Organic Chemicals

HQ: Lexington, Mass.
Plants: Owensboro, Ky.
Acton, Mass.
Cambridge, Mass.
Nashua, N.H.
Waterloo, N.Y.

Cryovac

HQ: Duncan, S.C.
Plants: Cedar Rapids, Iowa
Simpsonville, S.C.
Iowa Park, Tex.

Construction Products

HQ: Cambridge, Mass.
Mines: Libby, Mont.
Enoree, S.C.
Plant: Chicago, Ill.

Polyfibron

HQ: Lexington, Mass.
Plants: Owensboro, Ky.
Acton, Mass.
Adams, Mass.
De Pere, Wis.

European Chemicals

HQ: Lausanne, Switzerland
Plants: Teesside, England
Worms, Germany
Helsingborg, Sweden

European Darex

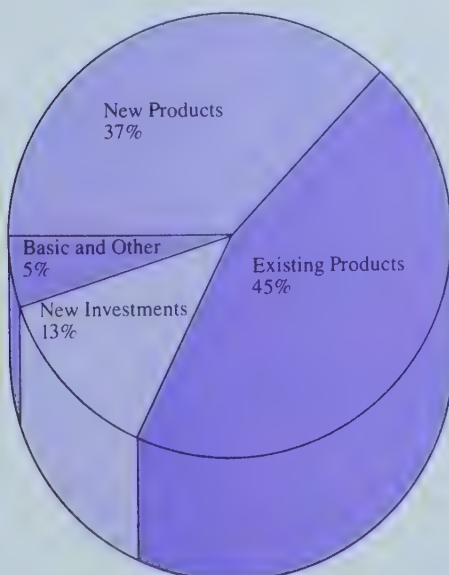
HQ: Lausanne, Switzerland
Plants: St. Neots, England
Epemnon, France
Selestat, France
Hamburg, Germany
Milan, Italy
Barcelona, Spain

European Technical

HQ: St.-Cloud, France
Plants: Slough, England
Steinbach, France
Heidelberg, Germany
Bollate, Italy

Pacific-Interamerican

HQ: New York, N.Y.
Plants: Quilmes, Argentina
Melbourne, Australia
Sao Paulo, Brazil
Tokyo, Japan
Mexico City, Mexico
Porirua, New Zealand
Valencia, Venezuela

Research and Development
Expenses 1980

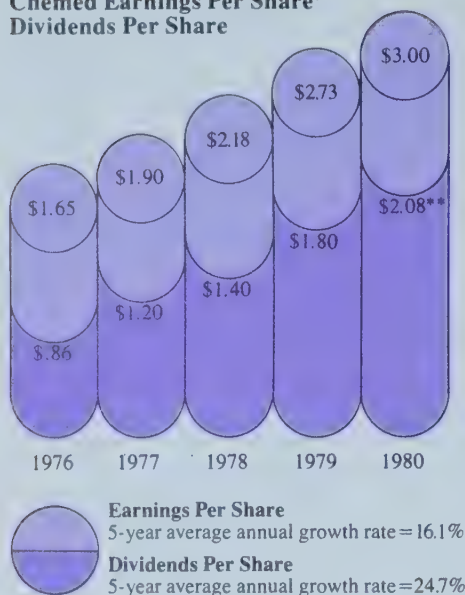
Research and Development

Grace engages in an active research and development program directed toward the improvement and development of new uses for existing products and processes, the development of new products compatible with existing businesses and the development of products and processes for new investment opportunities. Industrial research is carried out by divisional laboratories and by the corporate Research Division whose central laboratory is located in Columbia, Maryland. The following table shows the distribution of research and development expenses by strategic objective for the period of 1976-1980:

	(\$ millions)					
	Existing Products & Processes	New Products Compatible with Existing Businesses	New Business & Investment Opportunities	Basic Research Technical Information	Divested Units	Total
1976 . . .	\$15.2	\$ 7.0	\$2.9	\$.6	\$2.4	\$28.1
1977 . . .	15.2	10.3	3.5	.9	2.4	32.3
1978 . . .	15.5	15.0	4.1	.7	2.0	37.3
1979 . . .	19.0	16.9	4.2	1.2	1.1	42.4
1980 . . .	20.4	16.7	5.7	2.1	.1	45.0

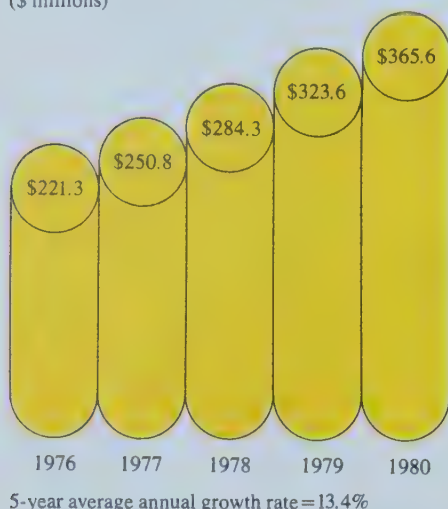
Of the \$45.0 million spent in 1980, approximately 92% was for Specialty Chemicals and Chemed. In 1981, Grace estimates that research expenditures will amount to about \$54 million.

Chemed Earnings Per Share* Dividends Per Share

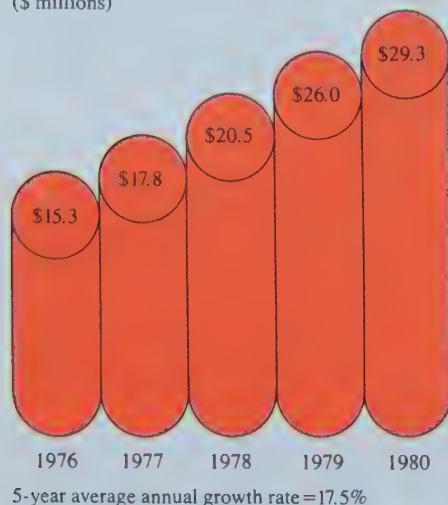


* From continuing operations
** Current annual dividend rate \$2.28 per share.

Sales from Continuing Operations (\$ millions)



Income from Continuing Operations (\$ millions)



Financial and Statistical Review

Chemed Corporation

Chemed Corporation, an 84%-owned subsidiary of the Company, is a specialty chemical company with interests in the health care field. Sales recorded by Chemed in 1980 reached \$365.6 million, up 13% from the \$323.6 million reported in 1979. Net income also increased 13%, from \$26.0 million in 1979 to \$29.3 million in 1980. Per share earnings in 1980 increased 10% to \$3.00. The average number of Chemed shares outstanding increased 2% from 9.5 million to 9.7 million largely due to the acquisition of Roto-Rooter Corporation.

Chemed's operations are principally in four business segments. The largest contributor, 44% of Chemed's total pretax operating profits in 1980, was water, waste treatment and air pollution control products and services. Chemed's water treatment chemicals are used primarily for maintenance and production purposes to treat boilers, cooling towers and air conditioning systems. It also produces chemicals for municipal and industrial waste treatment systems along with consulting engineering design services for the construction of waste treatment facilities, chemicals to increase energy output of fossil fuels and chemicals to remove pollutants generated by large coal-fired boilers. Also included in this segment is Roto-Rooter, Chemed's sewer, drain and pipe cleaning service.

Providing 28% of Chemed's 1980 operating profits is its specialty industrial chemicals business. This line of business comprises the manufacture and marketing of a broad line of cleaning and maintenance compounds, sanitation chemicals, paint strippers, cutting fluids, laundry products and specialized lubricants for a wide variety of industries including the transportation, food and beverage processing and manufacturing industries.

Chemed's health care products and services accounted for 15% of total operating profits. This segment provides specialty chemical products specifically designed for the health care industry including environmental germicides, germicidal detergents and skin cleansers for use in hospitals and clinics. Chemed also manufactures and distributes disposable medical, dental and veterinary products and markets pharmaceuticals to doctors, dentists and veterinarians. Respiratory therapy services, anesthesia and other specialized medical equipment and oxygen generating equipment are also provided to health care institutions and private patients.

Generating 13% of Chemed's 1980 operating profit was its specialty institutional food service chemicals business. Chemed produces detergents, rinse additives and other products for mechanical and manual dishwashing and kitchen maintenance for use by institutional customers such as hotels, restaurants, hospitals and schools.

Sales and operating profit statistics for Chemed's operations by segment are shown below:

(\$ millions)	1980	1979	1978	1977	1976
Sales from Continuing Operations*					
Water, waste treatment and air pollution control	\$110.3	\$ 94.4	\$ 79.5	\$ 68.1	\$ 61.0
Specialty industrial chemicals	107.2	101.8	89.5	80.9	70.7
Health care products and services . . .	81.3	68.5	60.2	51.9	44.8
Institutional food service chemicals . .	66.8	58.9	55.1	49.9	44.8
Total	<u>\$365.6</u>	<u>\$323.6</u>	<u>\$284.3</u>	<u>\$250.8</u>	<u>\$221.3</u>
Pretax Operating Profits from Continuing Operations*					
Water, waste treatment and air pollution control	\$ 22.1	\$ 19.8	\$ 17.4	\$ 14.7	\$ 12.6
Specialty industrial chemicals	14.0	15.5	13.8	12.0	10.6
Health care products and services . . .	7.3	6.1	5.5	4.5	4.5
Institutional food service chemicals . .	6.2	7.1	9.1	8.0	7.4
Total	<u>\$ 49.6</u>	<u>\$ 48.5</u>	<u>\$ 45.8</u>	<u>\$ 39.2</u>	<u>\$ 35.1</u>

* Data are shown on a continuing operations basis, i.e., excluding Figi's and Medical Diagnostic Services sold in 1978.

Chemed's capital stock is traded Over-the-Counter under the symbol CMED. Copies of its 1980 Annual Report and Form 10-K are available by writing: Cheryl D. Hodges, Director of Investor Relations, Chemed Corporation, 1200 DuBois Tower, Cincinnati, Ohio 45202.

(\$ millions)	Sales		
	1980	1979	% Change
Fertilizer	\$588	\$480	22.5%
Production and marketing (includes phosphate rock mining and upgrading to phosphate-based fertilizers; ammonia production and upgrading to nitrogen-based fertilizers; mixed,blended and fluid fertilizers)			
Feed	146	141	3.5
Production and marketing (includes <i>Farr Better Feeds</i> specializing in cattle feed and <i>Walnut Grove</i> specializing in hog feed)			
Animal Husbandry	33	25	32.0
<i>American Breeders Service</i> artificial insemination of dairy and beef cattle			
Total	\$767	\$646	18.7%

1980 Rated Annual Capacities⁽¹⁾ (Product tons, except as noted)

Nitrogen		Phosphates	
Ammonia	1,101,000	Phosphate rock	4,600,000
Urea	465,000	Phosphoric acid (100% P ₂ O ₅)	460,000
Nitrogen solutions	330,000	Concentrated phosphates	1,150,000
Ammonium nitrate	120,000	Mixed/Blended/Fluid Fertilizers	1,445,000
Ammonium sulfate	90,000	Phosphate Rock Production	
Phosphate Rock Reserves		Current annual rate	4,350,000
Technologically mineable	311,700,000 ⁽²⁾	Years of production	40+

Key Plant Locations

Ammonia	Mixed/Blended Fertilizers
Memphis, Tennessee	Joplin, Missouri
Woodward, Oklahoma	Henry, Illinois
Trinidad & Tobago, W. I.	Columbus, Ohio
Urea	Wilmington, North Carolina
Memphis, Tennessee	New Albany, Indiana
Trinidad & Tobago, W. I.	San Juan /Guanica, Puerto Rico
Nitrogen Solutions	Feed & Feed Supplements
Wilmington, North Carolina	Hereford, Texas
Woodward, Oklahoma	Guymon, Oklahoma
Ammonium Nitrate	Garden City, Kansas
Wilmington, North Carolina	Atlantic, Iowa
Phosphoric Acid & Concentrated Phosphates	Cherokee, Iowa
Bartow, Florida	West Liberty, Iowa
Phosphate Rock	Animal Husbandry
Polk County (Bartow), Florida	DeForest, Wisconsin
	Wellington, Colorado

⁽¹⁾ The production capacities shown do not necessarily represent actual operating capacities, since some facilities are designed to produce two or more types of products which cannot both be produced at the same time. Data shown reflect only Grace share of several partnerships in which Grace owns 50% or less.

⁽²⁾ Includes Bonny Lake, Hooker's Prairie, Manatee North and South and AgChem share of Four Corners as of December 31, 1980. Including the full effect of the contribution of Four Corners reserves to the Four Corners partnership would reduce the technologically mineable reserves to 273 million tons.

Financial and Statistical Review

Natural Resources

Estimated Future Net Revenues
(Unaudited)

(\$ millions)	United States	Canada	Libya
Proved Developed and Undeveloped Reserves:			
1981	\$ 104.8	\$ 3.7	\$ 55.7
1982	156.1	3.9	55.7
1983	149.2	3.5	55.7
Remainder	895.8	18.7	753.2
Total	<u>\$1,305.9</u>	<u>\$29.8</u>	<u>\$920.3</u>
Proved Developed Reserves:			
1981	\$ 137.2	\$ 3.8	\$ 55.7
1982	136.2	3.6	55.7
1983	126.6	3.1	55.7
Remainder	688.3	18.0	753.2
Total	<u>\$1,088.3</u>	<u>\$28.5</u>	<u>\$920.3</u>

Present Value of Estimated Future
Net Revenues—(Unaudited)

(\$ millions)	United States	Canada	Libya
Proved Developed and Undeveloped Reserves:			
At December 31, 1978	\$372.0	\$14.9	\$146.1
At December 31, 1979	610.2	10.7	456.1
At December 31, 1980	706.5	17.4	402.7
Proved Developed Reserves:			
At December 31, 1978	\$310.2	\$13.6	\$146.1
At December 31, 1979	485.3	10.4	456.1
At December 31, 1980	615.6	16.6	402.7

The future net revenues and present value of future net revenues in the foregoing tables, presented to comply with rules of the Securities and Exchange Commission (SEC), are based on estimated future production of oil, gas, natural gas liquids and sulfur from reserves valued at current prices less estimated future expenditures at current costs. The present value computation is based on a 10% interest rate with no deduction for taxes on income.

Changes in Present Value of Estimated
Future Net Revenues from Proved
Oil and Gas Reserves
(Unaudited)

(\$ millions)	1980	1979
Increases:		
Additions and revisions net of estimated future development and production costs	\$ 60.9	\$ 616.6
Purchases of reserves-in-place	111.3	29.6
Expenditures that reduced estimated future development costs	66.3	48.2
Total Increases	<u>238.5</u>	<u>694.4</u>
Decreases:		
Sales of oil and gas net of production costs	187.2	142.1
Sales of reserves-in-place	1.7	8.3
Total Decreases	<u>188.9</u>	<u>150.4</u>
Net increase in present value	49.6	544.0
Beginning of year present value	1,077.0	533.0
End of year present value	<u>\$1,126.6</u>	<u>\$1,077.0</u>

Grace believes that the following factors should be taken into account in reviewing the above information: (1) future costs and selling prices will probably exceed those required to be used in these calculations; (2) due to future market conditions and governmental regulation, the actual rate of production achieved in future years may vary significantly from the rate of production assumed in the calculations; and (3) selection of a 10% discount rate is arbitrary and may not be reasonable as a measure of the relative risk inherent in realizing future net oil and gas revenues.

Reserve Recognition Accounting

The following information is also presented to comply with SEC rules. Under reserve recognition accounting (RRA), changes in assumed valuations of proved reserves are recognized in income in the year in which they occur, and costs of exploration, development and production are expensed currently except for significant exploratory drilling and development costs deferred pending determination of proved reserves. Both current year income taxes and income taxes associated with the change in reserve valuation are charged against RRA income. The valuation of reserves is an arbitrary present value calculation based on proved reserves, current market prices, current costs, pretax cash flow and a 10% discount factor. Grace does not believe that RRA reporting is indicative of the current worth or future performance of its oil operations and cautions users against relying on such information.

**Summary of Oil and Gas Producing
Activities on the Basis of Reserve
Recognition Accounting
(Unaudited)**

(\$ millions)	<u>1980</u>	<u>1979</u>
Additions and Revisions to Estimated Proved Oil and Gas Reserves:		
Additions to estimated proved reserves, net of estimated future development and production costs	\$ 45.0	\$ 54.3
Revisions to estimates of proved reserves added in prior years:		
Changes in net prices, including windfall profit taxes of \$116.7 in 1980.	(19.9)	435.0
Other	(71.9)	74.0
Accretion of discount	<u>107.7</u>	<u>53.3</u>
Subtotal	60.9	616.6
Evaluated acquisition, exploration and development costs, including impairments	<u>29.6</u>	<u>17.9</u>
Additions and revisions to proved reserves over evaluated costs	31.3	598.7
Provision for income taxes	<u>35.3</u>	<u>430.3</u>
Results of oil and gas producing activities on the basis of reserve recognition accounting	<u>\$ (4.0)</u>	<u>\$ 168.4</u>

“Other” revisions to estimates include: (1) changes in estimated quantities of proved reserves; (2) changes in the estimated timing of producing the proved reserves; and (3) changes in estimated development costs to bring proved undeveloped reserves into production.

The pretax profit contribution reflected in the consolidated financial statements for oil and gas producing activities was \$119.0 and \$84.5 for 1980 and 1979, respectively.

Aggregate property acquisition costs and costs of uncompleted exploratory wells that have been deferred pending determination of proved reserves, together with related amortization, follow:

	<u>1980</u>	<u>1979</u>
Deferred costs	\$ 32.9	\$ 26.3
Accumulated amortization	(6.0)	(4.5)
Total	<u>\$ 26.9</u>	<u>\$ 21.8</u>

Provision for amortization amounted to \$2.9 and \$2.8 in 1980 and 1979, respectively.

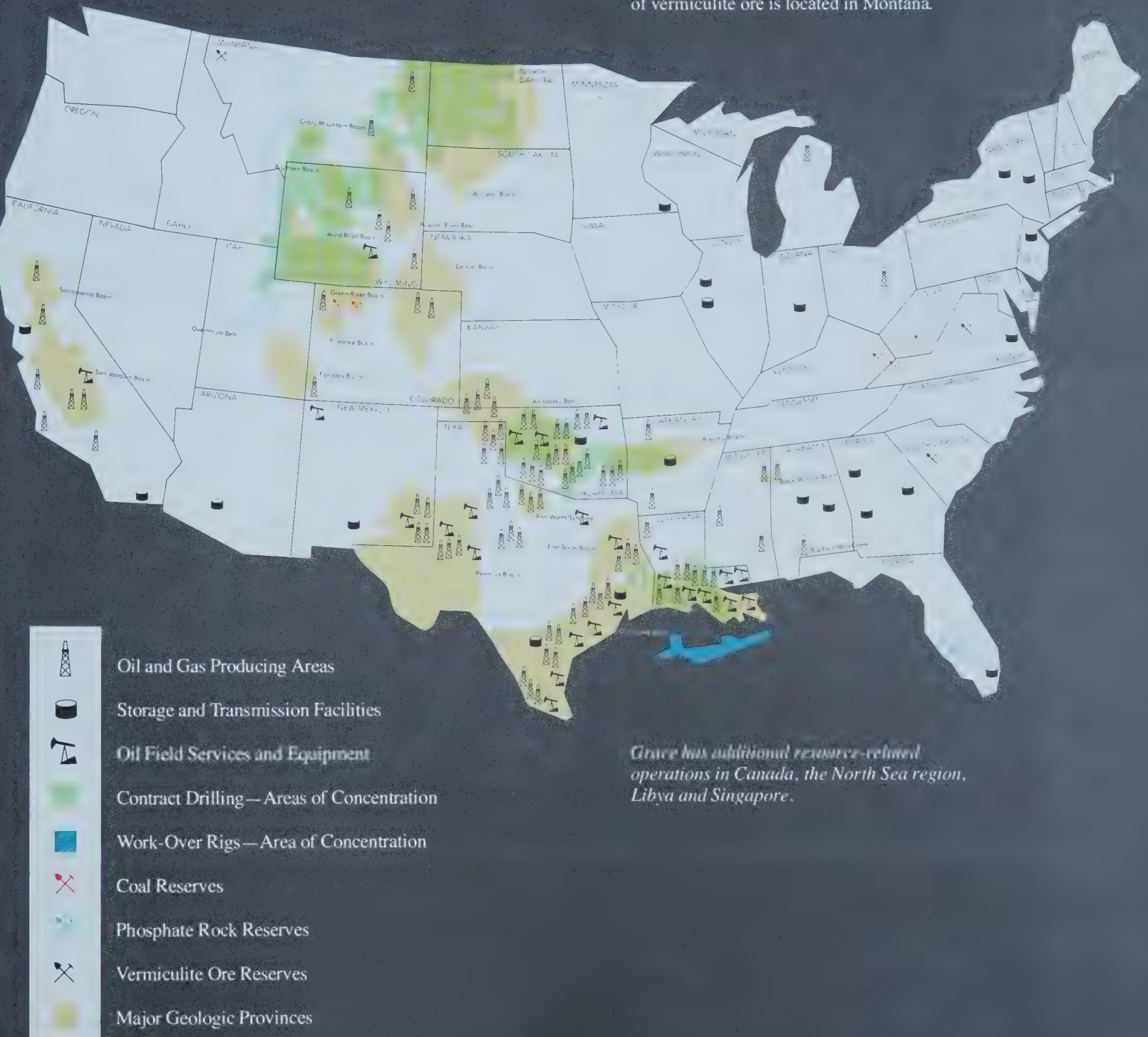
Oil and Gas (Unaudited)

The 1980, 1979 and 1978 estimated proved reserves of oil (including condensate, natural gas liquids and sulfur) and gas, estimated proved and probable oil equivalent reserves, average daily production and number of producing wells and acreage are shown below. The changes in reserves during the years described below were all in the ordinary course of business and were not otherwise significant. Oil and gas reserves cannot be measured exactly, and the following estimates are subject to future revision.

	United States			Canada			Libya		
	1980	1979	1978	1980	1979	1978	1980	1979	1978
Oil (000 Bbls.)									
Proved developed and undeveloped reserves:									
January 1	45,753	35,033	37,206	103	191	121	27,002	29,213	31,553
Revisions of previous estimates	8,834	2,415	(432)	(17)	(57)	79	—	—	—
Improved recovery	30	817	—	—	—	—	—	—	—
Purchases of minerals-in-place	4,934	5,851	1,893	—	—	—	—	—	—
Extensions, discoveries, etc.	841	6,699	389	—	—	—	—	—	—
Production	(4,193)	(3,886)	(4,003)	(14)	(31)	(9)	(1,629)	(2,211)	(2,340)
Sales of minerals-in-place	(23)	(1,176)	(20)	—	—	—	—	—	—
December 31	<u>56,176</u>	<u>45,753</u>	<u>35,033</u>	<u>72</u>	<u>103</u>	<u>191</u>	<u>25,373</u>	<u>27,002</u>	<u>29,213</u>
Proved developed reserves:									
January 1	37,381	28,201	31,108	103	104	121	27,002	29,213	31,553
December 31	<u>41,987</u>	<u>37,381</u>	<u>28,201</u>	<u>72</u>	<u>103</u>	<u>104</u>	<u>25,373</u>	<u>27,002</u>	<u>29,213</u>
Gas (MMCF)									
Proved developed and undeveloped reserves:									
January 1	297,267	284,021	284,844	15,819	26,345	21,788	—	—	—
Revisions of previous estimates	4,547	14,199	11,354	692	(4,689)	5,340	—	—	—
Improved recovery	—	—	—	—	—	—	—	—	—
Purchases of minerals-in-place	36,656	20,574	12,284	—	—	—	—	—	—
Extensions, discoveries, etc.	37,003	14,385	4,410	1,869	393	268	—	—	—
Production	(37,247)	(32,332)	(28,725)	(1,212)	(1,164)	(1,051)	—	—	—
Sales of minerals-in-place	(2,646)	(3,580)	(146)	(151)	(5,066)	—	—	—	—
December 31	<u>335,580</u>	<u>297,267</u>	<u>284,021</u>	<u>17,017</u>	<u>15,819</u>	<u>26,345</u>	<u>—</u>	<u>—</u>	<u>—</u>
Proved developed reserves:									
January 1	255,552	244,180	245,153	14,946	23,296	19,214	—	—	—
December 31	<u>291,990</u>	<u>255,552</u>	<u>244,180</u>	<u>16,493</u>	<u>14,946</u>	<u>23,296</u>	<u>—</u>	<u>—</u>	<u>—</u>
Estimated reserve position—proved and probable oil and oil equivalent barrels at December 31 (000 Bbls.)									
(5.8 MCF gas = 1 Bbl.)	123,807	115,864	102,965	3,006	2,836	4,735	25,373	27,002	29,213
Average daily production of oil and oil equivalent barrels (000 Bbls.)	29.0	25.9	24.5	0.6	0.7	0.6	4.5	6.1	6.4
Oil and gas wells and acreage:									
Net producing wells—									
Oil	1,273	1,269	1,290	3	2	6	6	6	5
Gas	333	301	284	12	13	13	—	—	—
Total	<u>1,606</u>	<u>1,570</u>	<u>1,574</u>	<u>15</u>	<u>15</u>	<u>19</u>	<u>6</u>	<u>6</u>	<u>5</u>
Producing acreage—									
Gross (acres)	448,655	507,444	514,477	51,566	28,079	40,480	25,464	25,464	25,464
Net (acres)	151,764	211,858	185,930	13,124	6,094	8,800	3,057	3,057	3,057

W. R. Grace & Co. Natural Resources: In oil and natural gas, Grace has 1,621 net producing wells and 117 million barrels of proved oil equivalent reserves in the U.S. and Canada. Contract drilling operations are concentrated in the Rocky Mountains, Oklahoma, Louisiana and Arkansas. Oil field services are furnished from 32 locations in the U.S.

In coal, Grace partnerships had, at year-end 1980, 340 million tons of low-sulfur reserves in Colorado and eastern states. Phosphate rock reserves in central Florida total nearly 312 million tons. The main deposit of vermiculite ore is located in Montana.



Grace has additional resource-related operations in Canada, the North Sea region, Libya and Singapore.

Specialty Retailing and Restaurant—A Five-Year History

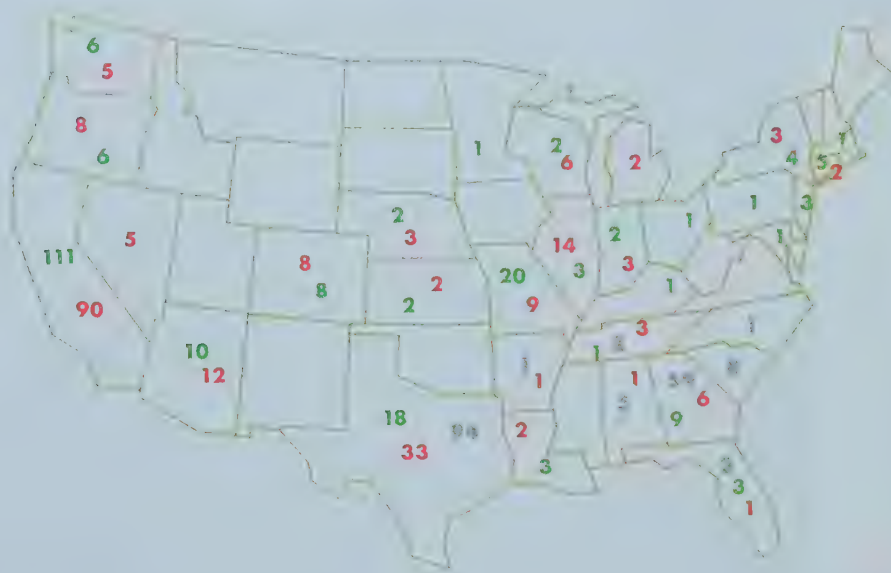
	Specialty Retailing ⁽¹⁾				Restaurant ⁽²⁾			
	Home Centers	Leisure Apparel	Jewelry and Sporting Goods	Total	Coffee Shops	Dinner-houses	Fast Food	Total
Sales (\$ millions)								
1976.....	\$260	\$ 76	\$139	\$ 475	\$ 59	\$124	\$ —	\$183
1977.....	318	92	169	579	74	147	—	221
1978.....	409	108	197	714	101	180	1	282
1979.....	625	120	229	974	139	226	22	387
1980.....	707	139	274	1,120	179	298	48	525
Average Annual Growth Rate	28.4%	16.3%	18.5%	23.9%	32.0%	24.5%	592.8%	30.1%
Number of Units—Year-End								
1976.....	112	179	84	375	92	115	—	207
1977.....	129	185	97	411	115	134	—	249
1978.....	175	189	113	477	148	148	21	317
1979.....	233	197	142	572	190	179	151	520
1980.....	254	204	155	613	219	224	173	616
Average Annual Growth Rate	22.7%	3.3%	16.6%	13.1%	24.2%	18.1%	187.0%	31.3%

⁽¹⁾ Data are shown as if the acquired businesses were owned by Grace over the entire five-year period. Actual acquisition dates for units acquired after January 1, 1976 were as follows: *Handy City*—December 1976, *Channel*—February 1977, *Orchard Supply*—January 1979, *Handy Dan*—March 1979 and *Cashway*—July 1980 (Home Centers); *Sheplers*—April 1976, *Diana*—March 1979 and *Bermans*—April 1979 (Leisure Apparel). *J. B. Robinson Jewelers*—September 1979 (Jewelry and Sporting Goods); Data for certain Home Center businesses have not been restated prior to 1979.

⁽²⁾ Data are shown as if the acquired businesses were owned by Grace over the entire five-year period. Actual acquisition dates for units acquired after January 1, 1976 were as follows: *jojos*—January 1980 (Coffee Shops); *El Torito-La Fiesta*—December 1976 and *Gilbert/Robinson*—November 1978 (Dinnerhouses); *Del Taco*—start-up in October 1977 (Fast Food).

Restaurants

219	Coffee Shops
224	Dinnerhouses
173	Fast Food
616	Total Number of Units



12	Cashway/Allwoods
85	Channel
46	Handy City
100	Handy Dan/Angels
11	Orchard
254	Total Number of Units



50	Bermans The Leather Experts
146	Diana (Includes 11 shops in Puerto Rico)
8	Sheplers
<hr/>	
204	Total Number of Units

63	J. B. Robinson Jewelers
92	Herman's World of Sporting Goods
155	Total Number of Units

Financial Data Adjusted for the Effects of Changing Prices (Unaudited)

The Financial Accounting Standards Board, requires that certain large publicly held companies disclose as supplementary information the impact of inflation on their businesses, using two fundamentally different methods for calculating net income, constant dollar and current cost accounting.

The constant dollar method adjusts traditional historic cost results for changes in the purchasing power of the dollar as measured by the United States Consumer Price Index for all Urban Consumers ("CPI-U"). Under the current cost method, results are restated for changes in specific prices applicable to the company's businesses. Only inventories, properties and equipment, cost of sales and depreciation, depletion and lease amortization expenses are required to be adjusted for the effects of general inflation and specific price changes. Other items of revenue and expense are assumed to have occurred proportionately throughout the year in relation to changing prices and, as such, are considered to be stated in average 1980 dollars. For purposes of comparability, the adjusted amounts for 1979 under both methods have been converted to average 1980 dollars as measured by the movement in the CPI-U.

The adjustment of inventories and properties and equipment to 1980 constant dollars resulted in increases in cost of goods sold of \$26.0 million and depreciation, depletion and lease amortization of \$95.3 million, and thereby decreased the net income of \$283.8 million as reported in the primary statements to \$162.5 million. Net income, when adjusted for changes in specific prices (current costs), decreased \$137.4 million from net income of \$283.8 million reported in the primary statements to \$146.4 million on a restated basis. This reduction is attributable to the restatement of asset values, particularly Grace's holdings in natural resources, reflecting the increase in the cost to acquire such assets at current prices; the portion of depreciation, depletion and lease amortization and, to a lesser degree, cost of goods sold related to the revaluation of assets is charged to net income. The sum of these adjustments result in the restatement of shareholders' equity—the investment base.

During periods of inflation, monetary assets such as cash and receivables lose value in terms of purchasing power because they will buy less in the future than in the present. On the other hand, monetary liabilities such as borrowed funds diminish in cost because they are liquidated with cash having less purchasing power than at the time the liabilities were incurred. Grace had unrealized gains of \$148.9 million in 1980 (\$121.6 million in 1979) from declines in purchasing power due to its net monetary liability position. As required, these gains have not been included in the determination of adjusted net income under either the constant dollar or current cost method. Additionally the holding gain of \$361.9 million (1979—\$401.4 million) reflecting the increase in asset values of inventories and property and equipment is shown separately and has not been included in adjusted net income.

Grace's effective tax rate is dramatically higher when the impact of inflation on 1980 earnings is considered, 56% under the constant dollar method and 59% under the current cost method (1979—63% and 72%). While the restated earnings presentations include higher costs, these costs have not been adjusted for income taxes because existing tax laws have not been revised to reflect the effects that inflation has on businesses or to permit companies to receive tax benefits that are adequate to maintain or replace productive capacity in view of the spiraling costs resulting from continued inflation. Under the existing tax structure, inflation results in a greater portion of pretax income being paid to government with the resulting effect of not only limiting the amount of earnings available for reinvestment in the business but also the amounts available for distribution to shareholders.

It should be recognized that the measurements applied in these restatements represent only approximations, and the techniques and measurement bases may undergo changes over time. The restated information also makes no allowance for the customary relationship between cost increases and changes in selling prices. Over the years, Grace's major lines of business have demonstrated an ability to maintain profit margins and, competitive conditions permitting, Grace sees no reason why these businesses will not be able to continue to modify selling prices to maintain margins and profitability. Finally, we believe the use of financial information adjusted for general inflation in the United States can result in distortions when analyzing a company such as Grace that has significant operations located in foreign countries with rates of inflation and relative currency values different from the United States.

Five Year Summary of Selected Financial Data Adjusted for the Effects of General Inflation (Unaudited)

	Years Ended December 31,	1980	1979	1978	1977	1976
Sales and other income (\$ millions)		\$6,159 **	\$6,079	\$5,707	\$5,710	\$5,507
Cash dividends declared per common share		\$ 2.18 **	\$ 2.25	\$ 2.34	\$ 2.41	\$ 2.46
Market price per common share at year-end		\$59.00 **	\$46.10	\$32.78	\$36.64	\$42.25
Average Consumer Price Index (1967= 100)		247	217	195	182	171

** As reported for 1980, all other data in this table have been restated in terms of average 1980 dollars based on the Consumer Price Index.

Statement of Income Adjusted for Changes in Specific Prices (Current Cost) (Unaudited)

(\$ millions except per share)

	As Reported in the Primary Statements	Restated in 1980 Dollars	
	1980	1980	1979
Sales and other income	\$6,158.5	\$6,158.5	\$6,079.3
Cost of goods sold and operating expenses	3,962.4	3,981.6	4,026.7
Selling, general and administrative expenses	1,323.2	1,323.2	1,267.0
Depreciation, depletion and lease amortization	204.0	322.2	316.1
Interest expense	128.8	128.8	121.1
Research and development expenses	45.0	45.0	52.0
Net foreign exchange (gains) losses	(11.2)	(11.2)	6.0
Net (gains) losses on disposal of businesses	13.9	13.9	(14.5)
	<u>5,666.1</u>	<u>5,803.5</u>	<u>5,774.4</u>
Income before taxes	492.4	355.0	304.9
Income taxes	208.6	208.6	221.0
Net income as reported and as adjusted.	<u>\$ 283.8</u>	<u>\$ 146.4</u>	<u>\$ 83.9</u>
Per share	<u>\$ 6.08</u>	<u>\$ 3.13</u>	<u>\$ 1.84</u>
Shareholders' equity at year-end	<u>\$1,796.1</u>	<u>\$2,844.7</u>	<u>\$2,951.7</u>
Per share	<u>\$ 38.56</u>	<u>\$ 61.07</u>	<u>\$ 64.83</u>
Gain from decline in purchasing power of net amount owed		<u>\$ 148.9</u>	<u>\$ 121.6</u>
Per share		<u>\$ 3.21</u>	<u>\$ 2.67</u>
Increase in general price level of inventories and properties and equipment held during the year* (\$9.55 per share; 1979—\$10.14 per share)		\$ 444.7	\$ 461.8
Increase in specific prices (\$1.78 per share; 1979—\$1.33 per share)		<u>82.8</u>	<u>60.4</u>
Excess of increase in general price level over increase in specific prices (\$7.77 per share; 1979—\$8.81 per share)		<u>\$ 361.9</u>	<u>\$ 401.4</u>

*At December 31, 1980, current cost of inventories was \$927.1 and current cost of properties and equipment, net of accumulated depreciation was \$3,241.8. The current cost of properties and equipment includes unprocessed natural resources and for 1979 has been restated in accordance with Statement of Financial Accounting Standards No. 39, "Financial Reporting and Changing Prices: Specialized Assets—Mining and Oil and Gas".

Statement of Income Adjusted for General Inflation (Constant Dollars) (Unaudited)

(\$ millions except per share)

	As Reported in the Primary Statements	Restated in 1980 Dollars	
	1980	1980	1979
Sales and other income	\$6,158.5	\$6,158.5	\$6,079.3
Cost of goods sold and operating expenses	3,962.4	3,988.4	4,041.2
Selling, general and administrative expenses	1,323.2	1,323.2	1,267.0
Depreciation, depletion and lease amortization	204.0	299.3	257.5
Interest expense	128.8	128.8	121.1
Research and development expenses	45.0	45.0	52.0
Net foreign exchange (gains) losses	(11.2)	(11.2)	6.0
Net (gains) losses on disposal of businesses	13.9	13.9	(14.5)
	<u>5,666.1</u>	<u>5,787.4</u>	<u>5,730.3</u>
Income before taxes	492.4	371.1	349.0
Income taxes	208.6	208.6	221.0
Net income as reported and as adjusted.	<u>\$ 283.8</u>	<u>\$ 162.5</u>	<u>\$ 128.0</u>
Per share	<u>\$ 6.08</u>	<u>\$ 3.47</u>	<u>\$ 2.80</u>
Shareholders' equity at year-end	<u>\$1,796.1</u>	<u>\$2,580.8</u>	<u>\$2,469.4</u>
Per share	<u>\$ 38.56</u>	<u>\$ 55.41</u>	<u>\$ 54.24</u>

Selected Natural Resources Statistics—Minerals

The 1980 and 1979 estimated proved and probable mineral reserves, minerals produced and average market prices are shown below in accordance with the standards set forth in Statement of Financial Accounting Standards No. 39, "Financial Reporting and Changing Prices: Specialized Assets—Mining and Oil and Gas".

	Consolidated Companies		Affiliated Companies ⁽¹⁾	
December 31,	1980	1979	1980	1979
Proved and probable reserves (tons in thousands):				
Phosphate rock	<u>298,738</u>	<u>302,730</u>	<u>12,996</u>	<u>—</u>
Coal	<u>—</u>	<u>—</u>	<u>160,751⁽²⁾</u>	<u>119,399</u>
Vermiculite	<u>55,580</u>	<u>55,904</u>	<u>—</u>	<u>—</u>
Produced (tons in thousands):				
Phosphate rock	<u>4,350</u>	<u>3,639</u>	<u>—</u>	<u>—</u>
Coal	<u>—</u>	<u>—</u>	<u>2,016</u>	<u>1,041</u>
Vermiculite	<u>324</u>	<u>323</u>	<u>—</u>	<u>—</u>
Average market price per ton:				
Phosphate rock	<u>\$ 22.21</u>	<u>\$ 19.90</u>	<u>—</u>	<u>—</u>
Coal	<u>—</u>	<u>—</u>	<u>\$ 21.09</u>	<u>\$ 16.67</u>
Vermiculite	<u>\$ 72.00</u>	<u>\$ 64.00</u>	<u>—</u>	<u>—</u>

⁽¹⁾ Grace's share of the mineral reserves of 47½% to 50% owned affiliated companies.

⁽²⁾ Includes 56,367,000 tons purchased during 1980. Underground reserves of 37 million tons (1979-50 million tons) are excluded for cost amortization purposes because no costs have been incurred for the development of an underground mine.

Summary of Significant Accounting and Financial Reporting Policies

The accounting and financial reporting policies of W. R. Grace & Co. and subsidiary companies (“Grace”) conform to generally accepted accounting principles and reflect practices common in their various businesses.

Principles of Consolidation

The consolidated financial statements include the accounts of W. R. Grace & Co. (“Company”) and all majority owned subsidiary companies. Investments in affiliated companies are carried at cost adjusted for subsequent changes in equity.

Inventories

Inventories are stated at the lower of cost or market. Due to the diversified nature of Grace’s operations, several methods of determining cost are used, including first-in, first-out, average, retail and, for substantially all chemical inventories in the United States, last-in, first-out. Market value for raw and packaging materials is based on current costs and, for other inventory classifications, on net realizable value.

Properties and Equipment and Related Depreciation

Depreciation of properties and equipment, including those operated under capitalized leases, is generally computed using the straight line method over the estimated useful lives of assets. Grace uses the successful efforts method of accounting for its oil and gas operations. Depletion of natural resource properties is determined using the unit of production method. Interest incurred during the construction period for certain properties and equipment is capitalized and amortized, generally on a straight line basis, over the lives of the assets.

Development Expenses

Costs associated with the development of businesses, including promotion, market research, preoperating and store preopening expenses, are charged to income as incurred.

Earnings Per Share

Earnings per share are computed on the basis of the weighted average number of common shares outstanding. Earnings per share assuming full dilution are computed based on the assumption that convertible debt obligations were converted at the beginning of the period.

Pension Plans

Costs of pension plans are actuarially computed principally using the aggregate cost method under which all unfunded prior service costs are amortized over the estimated remaining service lives of plan participants.

Consolidated Statement of Income *In Millions (except per share)*

Years Ended December 31,	1980	1979	1978
Sales	\$6,101.3	\$5,297.6	\$4,474.4
Dividends, interest and other income	57.9	41.9	22.1
Equity in earnings (losses) of affiliated companies	(.7)	1.4	9.4
	6,158.5	5,340.9	4,505.9
Cost of goods sold and operating expenses	3,962.4	3,492.6	3,006.1
Selling, general and administrative expenses	1,323.2	1,114.5	880.5
Depreciation, depletion and lease amortization	204.0	169.5	161.5
Interest expense	128.8	106.4	83.6
Research and development expenses	45.0	42.4	37.3
Net foreign exchange (gains) losses	(11.2)	5.3	13.8
Net (gains) losses on disposal of businesses	13.9	(12.8)	(8.0)
	5,666.1	4,917.9	4,174.8
Income before taxes	492.4	423.0	331.1
Income taxes	208.6	194.2	155.3
Net income	\$ 283.8	\$ 228.8	\$ 175.8
Earnings per share	\$ 6.08	\$ 5.01	\$ 3.97
Earnings per share assuming full dilution	\$ 5.91	\$ 4.79	\$ 3.72

The Summary, page 49, and Notes to Financial Statements, pages 54 to 62, are integral parts of this statement.

Consolidated Statement of Changes in Financial Position *In Millions*

	Years Ended December 31,	1980	1979	1978
Source (Use) of Funds				
Net income	\$	283.8	\$ 228.8	\$ 175.8
Add (deduct) items not affecting working capital:				
Depreciation, depletion and amortization		232.3	190.0	177.0
Deferred income taxes		49.9	10.6	16.7
Equity in unremitted earnings of affiliated companies		(17.2)	3.0	(6.0)
Net (gains) losses on disposal of businesses		13.9	(12.8)	(8.0)
Working capital provided by operations		562.7	419.6	355.5
Working capital items ⁽¹⁾		39.6	(75.1)	(172.2)
Book value of properties sold		31.1	22.0	16.2
Capital expenditures		(657.4)	(511.2)	(308.5)
Cash dividends		(101.8)	(87.6)	(73.0)
Other transactions, net		(27.1)	.9	(10.5)
Total Before Investment and Financing Activity		(152.9)	(231.4)	(192.5)
Investment Activity				
Proceeds from disposal of businesses		31.5	118.5	97.8
Book value of long term investments sold		6.3	7.7	9.0
Businesses acquired in purchase transactions		(58.2)	(125.0)	(.9)
Investments in and advances to affiliated companies		(25.5)	(1.2)	25.7
Other investment transactions, net		(4.1)	(.5)	(2.5)
Total Before Financing Activity		(202.9)	(231.9)	(63.4)
Financing Activity				
Increase in long term debt		321.4	107.7	147.7
Increase (decrease) in loans payable		(93.7)	79.5	69.0
Reduction in long term debt		(92.7)	(105.9)	(127.5)
Stock issued to convert subordinate debentures		22.8	26.2	39.5
Other financing transactions, net		12.8	15.4	6.8
Increase (Decrease) in Cash and Marketable Securities . . .	\$	(32.3)	\$(109.0)	\$ 72.1

⁽¹⁾ **Analysis of Working Capital Items**

Notes and accounts receivable	\$	(9.7)	\$(110.6)	\$ (96.2)
Inventories		(39.4)	(123.8)	(117.3)
Accounts payable		45.3	102.3	42.4
Income taxes		(8.1)	27.6	(.4)
Other, net		51.5	29.4	(.7)
	\$	39.6	\$(75.1)	\$(172.2)

The Summary, page 49, and Notes to Financial Statements, pages 54 to 62, are integral parts of this statement.

Consolidated Balance Sheet *In Millions*

	December 31,	1980	1979
Assets			
Current Assets			
Cash	\$	78.6	\$ 149.5
Marketable securities		46.3	7.7
Notes and accounts receivable, less allowances of \$25.9 (1979-\$25.8)		743.5	737.5
Inventories		812.5	769.5
Other current assets		38.5	34.5
Total Current Assets		1,719.4	1,698.7
Long term receivables and other assets		254.7	220.9
Investments in and advances to affiliated companies		144.7	81.3
Properties and equipment, net		2,162.7	1,689.9
Goodwill, less amortization of \$11.8 (1979-\$10.1)		83.0	48.1
		\$4,364.5	\$3,738.9
Liabilities			
Current Liabilities			
Loans payable	\$	228.1	\$ 266.4
Accounts payable		501.3	448.4
Income taxes		140.6	151.7
Other current liabilities		265.0	205.7
Total Current Liabilities		1,135.0	1,072.2
Long term debt		1,115.7	839.8
Foreign social law obligations and other noncurrent liabilities		113.4	86.3
Deferred income taxes		177.5	128.7
Equity of minority shareholders		26.8	23.2
		2,568.4	2,150.2
Shareholders' Equity		1,796.1	1,588.7
		\$4,364.5	\$3,738.9

The Summary, page 49, and Notes to Financial Statements, pages 54 to 62, are integral parts of this statement.

Consolidated Statement of Shareholders' Equity *In Millions*Years Ended December 31, **1978, 1979** and **1980**

	Preferred Stocks	Common Stock	Paid in Capital	Retained Earnings	Total
Balance at January 1, 1978, as reported	\$8.9	\$42.6	\$353.7	\$ 857.9	\$1,263.1
Adjustment for businesses combined in poolings of interests transactions in 1980	—	1.3	(.8)	6.0	6.5
Balance at January 1, 1978, as restated	8.9	43.9	352.9	863.9	1,269.6
Net income—1978	—	—	—	175.8	175.8
Dividends paid	—	—	—	(73.0)	(73.0)
Conversion of subordinate debentures	—	1.3	38.2	—	39.5
Other	—	.1	2.9	1.1	4.1
Balance at December 31, 1978	8.9	45.3	394.0	967.8	1,416.0
Net income—1979	—	—	—	228.8	228.8
Dividends paid	—	—	—	(87.6)	(87.6)
Conversion of subordinate debentures	—	.9	25.3	—	26.2
Other	—	.1	2.8	2.4	5.3
Balance at December 31, 1979	8.9	46.3	422.1	1,111.4	1,588.7
Net income—1980	—	—	—	283.8	283.8
Dividends paid	—	—	—	(101.8)	(101.8)
Conversion of subordinate debentures	—	.8	22.0	—	22.8
Other	(.1)	—	3.0	(.3)	2.6
Balance at December 31, 1980	\$8.8	\$47.1	\$447.1	\$1,293.1	\$1,796.1

The Summary, page 49, and Notes to Financial Statements, pages 54 to 62, are integral parts of this statement.

(The financial statements for 1979 and 1978 have been reclassified, and restated for poolings of interests.)

Note 1—Marketable Securities

Current marketable securities are carried at cost which approximates market.

Note 2—Notes and Accounts Receivable

Notes and accounts receivable consist of:

	<u>1980</u>	<u>1979</u>
Trade, less allowances of \$19.1 (1979—\$15.8)	\$687.9	\$652.3
Other, less allowances of \$6.8 (1979—\$10.0)	55.6	85.2
	<u>\$743.5</u>	<u>\$737.5</u>

Note 3—Inventories

Inventories consist of:

	<u>1980</u>	<u>1979</u>
Raw and packaging materials	\$191.6	\$189.0
In process	61.6	61.8
Finished products	315.4	290.0
General merchandise	351.4	308.8
Real estate development properties	5.3	5.5
	<u>925.3</u>	<u>855.1</u>
Less: Adjustment of certain inventories to a last-in, first-out (LIFO) basis	<u>112.8</u>	<u>85.6</u>
	<u>\$812.5</u>	<u>\$769.5</u>

Inventories valued at LIFO cost comprised 25.0% of consolidated inventories before the LIFO adjustment at December 31, 1980 and 23.1% at December 31, 1979.

The inventory amounts used in the computation of cost of goods sold and operating expenses were as follows:

December 31, 1977	\$636.7
December 31, 1978	712.8
December 31, 1979	769.5
December 31, 1980	812.5

Note 4—Long Term Receivables and Other Assets

Long term receivables and other assets consist of:

	<u>1980</u>	<u>1979</u>
Long term receivables, less allowances of \$3.4 (1979—\$6.7)	\$ 31.6	\$ 37.7
Real estate development properties	20.0	31.9
Deferred charges	54.0	41.5
Natural resource tools, supplies and rental equipment	87.1	49.1
Noncurrent marketable securities	7.1	10.4
Other	54.9	50.3
	<u>\$254.7</u>	<u>\$220.9</u>

Noncurrent marketable equity securities are carried at cost which is \$6.4 less than approximate market at December 31, 1980 (cost approximated market at December 31, 1979).

Note 5—Investments in and Advances to Affiliated Companies

Grace has equity interests ranging from 47.5% to 50% in affiliated companies which are engaged in the development of coal and phosphate properties and manufacturing phosphoric acid and ammonia, and also owns a 49% interest in an ammonia manufacturing company in Trinidad.

In 1980, Grace and International Minerals & Chemical Corporation ("IMC") formed a partnership to construct facilities to mine certain properties containing phosphate rock reserves. Included in Dividends, interest and other income for 1980 is a gain of \$16.1 on the contribution of phosphate rock to the partnership. Under the partnership agreement, IMC has three options, which upon exercise, will result in three additional contributions of phosphate rock by Grace during the mine development period. Grace anticipates that the mine will be operating at full production by 1983, at which time each partner will receive 50% of production.

A summary of financial information of affiliated companies is set forth below:

	1980	1979	
Total assets	\$821.3	\$545.1	
Total liabilities	467.7	362.4	
Net assets	<u>\$353.6</u>	<u>\$182.7</u>	
Grace's investments and advances	<u>\$144.7</u>	<u>\$ 81.3</u>	
	1980	1979	1978
Grace's equity in earnings (losses)	\$ (.7)	\$ 1.4	\$ 9.4
Dividends received	<u>\$.2</u>	<u>\$ 4.4</u>	<u>\$ 3.4</u>

At December 31, 1980, Grace had guaranteed certain obligations totaling \$80.9 (1979-\$72.8) incurred by affiliated companies. No loss is anticipated under these guarantees.

Transactions arising between Grace and affiliated companies are within the course of ordinary business.

Note 6—Properties and Equipment

Properties and equipment consist of:

	1980	1979
Land	\$ 137.4	\$ 123.0
Natural resource properties	665.4	459.0
Buildings	749.8	619.6
Machinery, equipment and other	1,646.1	1,407.3
Projects under construction	125.2	92.1
	<u>3,323.9</u>	<u>2,701.0</u>
Accumulated depreciation, depletion and lease amortization	(1,161.2)	(1,011.1)
	<u>\$ 2,162.7</u>	<u>\$ 1,689.9</u>

Capitalized leases relate primarily to Restaurant and Specialty Retailing facilities. The present value of capitalized lease payments and the future minimum lease payments on operating leases are:

	Capitalized Leases	Operating Leases
1981	\$ 28.7	\$ 70.9
1982	28.2	67.0
1983	28.5	63.9
1984	26.2	60.3
1985	25.5	57.1
Later years	<u>383.3</u>	<u>582.6</u>
Total minimum lease payments	520.4	\$ 901.8
Interest	(318.6)	
Present value of net minimum lease payments	<u>\$ 201.8</u>	

Grace's total rental expense for operating leases was \$85.1 (1979—\$69.8; 1978—\$55.5), including \$7.8 (1979—\$6.9; 1978—\$4.1) of contingent rentals. Sublease rentals were not significant in these years.

Note 7—Accounting for Oil and Gas Producing Operations

The aggregate amount of capitalized costs and related accumulated depreciation, depletion and amortization pertaining to Grace's oil and gas activities are as follows:

	United States	Canada	Libya	Total
1978				
Proved properties	\$364.8	\$ 4.4	\$ 5.4	\$374.6
Unproved properties	17.8	.7	.8	19.3
Accumulated depreciation, depletion and amortization	(120.7)	(1.2)	(3.7)	(125.6)
	<u>\$261.9</u>	<u>\$ 3.9</u>	<u>\$ 2.5</u>	<u>\$268.3</u>
1979				
Proved properties	\$423.4	\$ 4.4	\$ 5.4	\$433.2
Unproved properties	24.5	.5	.8	25.8
Accumulated depreciation, depletion and amortization	(134.7)	(1.5)	(3.9)	(140.1)
	<u>\$313.2</u>	<u>\$ 3.4</u>	<u>\$ 2.3</u>	<u>\$318.9</u>
1980				
Proved properties	\$613.6	\$ 4.8	\$ 5.5	\$623.9
Unproved properties	31.3	.5	.8	32.6
Accumulated depreciation, depletion and amortization	(172.7)	(2.0)	(3.9)	(178.6)
	<u>\$472.2</u>	<u>\$ 3.3</u>	<u>\$ 2.4</u>	<u>\$477.9</u>

Costs incurred in oil and gas producing activities are as shown in the following table:

	United States	Canada	Libya	Total
Proved property acquisition				
1978	\$ 17.1	\$ —	\$ —	\$ 17.1
1979	29.6	—	—	29.6
1980	101.2	—	—	101.2
Unproved property acquisition				
1978	6.8	—	—	6.8
1979	15.7	.1	—	15.8
1980	18.7	—	—	18.7
Exploration				
1978	6.3	—	.2	6.5
1979	5.5	—	.2	5.7
1980	10.4	—	.2	10.6
Development				
1978	42.5	.4	—	42.9
1979	55.3	.5	—	55.8
1980	81.9	.4	.2	82.5
Production (lifting)				
1978	30.0	.3	2.2	32.5
1979	39.1	.2	3.0	42.3
1980	67.0	.3	3.9	71.2
Total				
1978	\$102.7	\$.7	\$ 2.4	\$105.8
1979	145.2	.8	3.2	149.2
1980	279.2	.7	4.3	284.2
Provision for depreciation, depletion and amortization excluded from above				
1978	\$ 45.3	\$.3	\$.3	\$ 45.9
1979	39.2	.3	.2	39.7
1980	44.1	.4	.1	44.6

Unaudited reserve quantity information is on page 42.

Unaudited Reserve Recognition Accounting information is on page 41.

Note 8—Long Term Debt

Long term debt consists of:

	Average Interest Rate	Years of Maturity	1980	1979
W.R. Grace & Co.				
Commercial paper ⁽¹⁾	19.8%	—	\$ 99.8	\$ —
Promissory notes	7.9	1981-1998	446.0	468.2
Promissory notes	12.625	1990	100.0	—
Subordinate debentures ⁽²⁾	6.5	1982-1996	14.7	35.4
Subordinate debentures ⁽³⁾	4.25	1981-1990	32.8	36.7
Sundry indebtedness	8.9	1981-2002	75.5	55.2
Debentures	5.75	1980	—	1.9
Debentures ⁽³⁾	5.0	1981-1986	7.3	9.0
			<u>776.1</u>	<u>606.4</u>
Subsidiaries				
Daylin, Inc.				
Subordinated indebtedness ⁽⁴⁾	8.0	1991-1994	29.7	30.2
Other ⁽⁵⁾	8.3	1981-2005	40.2	31.6
W.R. Grace Land Corporation	9.1	1981-2005	2.9	12.1
Other	10.2	1981-2007	26.8	14.4
			<u>875.7</u>	<u>694.7</u>
Capitalized lease obligations			201.8	153.6
Production payments ⁽⁶⁾			111.0	48.0
			<u>1,188.5</u>	<u>896.3</u>
Amount due within one year			(72.8)	(56.5)
			<u>\$ 1,115.7</u>	<u>\$ 839.8</u>

⁽¹⁾ Grace has issued commercial paper in the form of unsecured short term notes. The commercial paper borrowings are classified as long term debt at December 31, 1980 because of the availability of long term financing under the terms of revolving credit agreements, and the Company's intent to refinance this debt on a long term basis.

⁽²⁾ Convertible into one share of common stock for each \$29.625 principal amount.

⁽³⁾ Convertible into one share of common stock for each \$57.32 principal amount.

⁽⁴⁾ Represents subordinated indebtedness, net of unamortized discount amounting to \$8.8 (1979—\$13.4), issued pursuant to a 1976 Plan of Arrangement for Daylin, Inc. under Chapter XI of the Federal Bankruptcy Act, prior to the acquisition of Daylin, Inc. by Grace. In the event of certain defaults, the full face amount of these securities then outstanding would become due and payable.

⁽⁵⁾ Secured by real estate properties.

⁽⁶⁾ Production payments represent financings attributable to natural resources, and are repayable from the proceeds of the sale of the production thereof.

Long term debt payable during each of the four years subsequent to December 31, 1981 is: 1982—\$65.2; 1983—\$74.4; 1984—\$68.3; 1985—\$68.8.

The Company has entered into a revolving credit agreement totaling \$400 with various banks at interest rates varying from prime to .50% over prime or .50% to 1.00% over the applicable Eurodollar rate. At December 31, 1980, there were no outstanding borrowings under this agreement. The Company has additional credit lines amounting to \$98.9 for a total of \$498.9 (1979—\$345.8), which were unused at December 31, 1980. In connection with \$463.9 of the Company's credit lines, commitment fees of .50% per annum are payable on the unused portions. A portion of Grace's cash balance serves to compensate banks for credit lines and services. Such balances are generally unrestricted.

Grace adopted Statement of Financial Accounting Standards No. 34, "Capitalization of Interest Cost", prospectively as of January 1, 1980, and interest costs of \$14.1 incurred in connection with the financing of properties and equipment under construction were capitalized in the year ended December 31, 1980.

Note 9—Shareholders' Equity

Preferred stocks (\$100 par value) authorized, issued and outstanding are:

	Shares		Par Value of		
	Authorized and Issued	In Treasury	Shares Outstanding		
			(December 31, 1980)		
			1980	1979	1978
6% Cumulative ⁽¹⁾	40,000	15,282	\$ 2.5	\$ 2.5	\$ 2.5
8% Cumulative Class A ⁽²⁾	50,000	16,343	3.3	3.4	3.4
8% Noncumulative Class B ⁽²⁾	40,000	9,847	3.0	3.0	3.0
			<u>\$ 8.8</u>	<u>\$ 8.9</u>	<u>\$ 8.9</u>

⁽¹⁾ Eighty votes per share.⁽²⁾ Eight votes per share.

Dividends paid on the Company's preferred stocks amounted to \$.7 (1979 and 1978—\$.7).

The Company's Certificate of Incorporation also authorizes 5,000,000 shares of Class C preferred stock, without par value, none of which has been issued.

Authorized common stock of the Company is 75,000,000 shares (\$1 par value). Of common stock unissued at December 31, 1980, approximately 2,597,000 shares may be issued upon conversion of convertible debt obligations, exercise of stock options and granting of stock awards.

The weighted average number of common shares outstanding was 46,579,000 (1979—45,530,000; 1978—44,076,000). Assuming full dilution, the weighted average number of shares outstanding was 48,234,000 (1979—48,235,000; 1978—48,272,000).

At December 31, 1980, \$349.3 of retained earnings were free of the restriction on payment of cash dividends imposed by terms of the most restrictive of the Company's loan agreements. Retained earnings of \$333.1 at December 31, 1980 represent undistributed earnings of consolidated foreign subsidiaries which may be subject to currency, exchange and other restrictions imposed by regulatory bodies of the countries in which the subsidiaries operate.

Note 10—Stock Options

Changes in common stock options outstanding are summarized below:

	1980		1979		1978	
	Number of Shares	Average Price	Number of Shares	Average Price	Number of Shares	Average Price
Balance at beginning of year . .	980,514	\$ 26.48	1,176,177	\$ 26.13	1,107,749	\$ 26.41
Options granted	322,900	39.70	144,450	30.67	214,374	24.29
	<u>1,303,414</u>		<u>1,320,627</u>		<u>1,322,123</u>	
Options exercised	(17,156)	22.21	(27,322)	20.83	(27,024)	19.19
Options terminated or cancelled	(199,144)	26.75	(312,791)	27.57	(118,922)	27.07
Balance at end of year .	<u>1,087,114</u>	<u>30.42</u>	<u>980,514</u>	<u>26.48</u>	<u>1,176,177</u>	<u>26.13</u>

At December 31, 1980, options for 373,632 shares (1979—445,831 shares; 1978—644,941 shares) were exercisable and 304,046 shares (1979—489,617 shares; 1978—482,359 shares) were available for granting of additional options and stock awards.

Under the provisions of the Company's stock option plans, the optionee may, in lieu of exercising an option, request cancellation and receive, at the Company's election and without payment to the Company, cash or shares of common stock having a market value equal to the difference between the option price and the market price. Upon such cancellation, the shares covered by the option, less the shares issued, if any, become available for future grants. Compensation expense relating to the Company's plans was \$15.3 (1979—\$9.4; 1978—not significant).

Note 11—Business Combinations

The following is a summary of businesses acquired during 1980 which for accounting purposes have been treated as poolings of interests:

Industry Segments	Shares of Common Stock Issued	1980 Results of Operations Prior to Combination		Full Year Results of Operations					
		Sales	Net Income	Sales			Net Income		
				1980	1979	1978	1980	1979	1978
Specialty Chemicals	144,737	\$.8	\$ —	\$ 1.8	\$ 1.8	\$ 1.5	\$.1	\$.3	\$.2
Natural Resources	1,135,357	3.5	.5	39.6	29.2	24.7	7.9	5.9	4.4

The Company issued 2,719,323 shares of common stock in 1979 and 2,247,379 in 1978 as consideration in the acquisition of Specialty Chemicals, Natural Resources, Specialty Retailing and Restaurant businesses which have been treated as poolings of interests. Sales and net income for the businesses acquired in 1979 amounted to \$167.6 and \$10.3, respectively in that year, of which \$48.9 and \$2.4 related to the periods prior to combination. Reported sales and net income for 1978 have been increased by \$133.2 and \$8.7 respectively, on restatement for 1979 poolings of interests. Sales and net income for the businesses acquired in 1978 amounted to \$110.8 and \$9.0, respectively in that year, of which \$68.4 and \$4.0 related to periods prior to combination.

The following is a summary of businesses acquired during 1980 and 1979 (1978 acquisitions were not significant) which for accounting purposes have been treated as purchases:

	Acquisition Costs	
	1980	1979
Chemed	\$ 19.1	\$ —
Natural Resources	47.6	34.1
Specialty Retailing	38.3	—
Daylin, Inc. (primarily Specialty Retailing)	—	148.0
Restaurant	11.8	2.5

The results of operations of businesses acquired in purchase transactions are included in the consolidated financial statements from the dates of acquisition. The following summarizes Grace's pro forma results of operations as though these businesses were included in the consolidated financial statements as of the beginning of the year prior to acquisition:

	1980	1979	1978
Sales	\$6,143.5	\$5,499.5	\$4,800.2
Net income	\$ 286.7	\$ 235.4	\$ 187.5
Earnings per share	\$ 6.14	\$ 5.16	\$ 4.24

Goodwill arises from certain business combinations treated as purchase transactions and is amortized using the straight line method over various periods not exceeding forty years.

**Note 12—Net Gains (Losses)
on Disposal of Businesses**

Grace sold and provided for losses on disposal of certain businesses and adjusted amounts provided in prior years with the resultant gains (losses) included in income as follows:

	1980	1979	1978
Specialty Chemical	\$ —	\$ (2.0)	\$ (11.5)
Chemed	—	—	25.7
Agricultural Chemical	1.6	—	1.2
Natural Resources	—	26.1	—
Specialty Retailing	(.2)	(.8)	.4
Other Consumer	(15.3)	(10.5)	(7.8)
Total before taxes	(13.9)	12.8	8.0
Income taxes	3.6	(7.6)	(11.5)
Total after taxes	\$ (10.3)	\$ 5.2	\$ (3.5)

Note 13—Income Taxes

The provision for income taxes consists of:

	<u>1980</u>	<u>1979</u>	<u>1978</u>
Current:			
Federal	\$ 25.8	\$ 48.5	\$ 26.3
State	12.6	16.4	13.2
Foreign	126.9	111.9	92.5
Deferred:			
Federal	37.7	17.7	25.0
Foreign	5.6	(.3)	(1.7)
	<u>\$ 208.6</u>	<u>\$ 194.2</u>	<u>\$ 155.3</u>

The source of income before taxes is as follows:

	<u>1980</u>	<u>1979</u>	<u>1978</u>
Domestic	\$ 246.1	\$ 237.0	\$ 150.7
Foreign	246.3	186.0	180.4
	<u>\$ 492.4</u>	<u>\$ 423.0</u>	<u>\$ 331.1</u>

Investment tax credits are applied as a reduction of the current tax provision in the year they arise and amounted to \$29.9 (1979—\$22.6; 1978—\$11.6).

Deferred income taxes arise from differences in the timing of recognition of revenues and expenses for tax purposes and for financial accounting and reporting purposes. The major components of the deferred income tax provision are:

	<u>1980</u>		<u>1979</u>		<u>1978</u>	
	<u>Federal</u>	<u>Foreign</u>	<u>Federal</u>	<u>Foreign</u>	<u>Federal</u>	<u>Foreign</u>
Accelerated methods of depreciation	\$ 28.8	\$ 3.5	\$ 15.9	\$ 2.4	\$ 10.9	\$ 3.5
Tax benefits on disposition of properties and investments not currently deductible	(10.7)	—	(3.2)	(1.1)	(3.2)	(1.0)
Reversal of previously provided tax benefits on disposition of properties and investments currently deductible	2.1	—	5.2	—	8.1	—
Intangible drilling and development costs	17.4	—	8.2	—	8.0	—
Other timing differences, net .....	.1	2.1	(8.4)	(1.6)	1.2	(4.2)
	<u>\$ 37.7</u>	<u>\$ 5.6</u>	<u>\$ 17.7</u>	<u>\$ (.3)</u>	<u>\$ 25.0</u>	<u>\$ (1.7)</u>

The effective tax rate reconciles to the statutory Federal tax rate as follows:

	<u>1980</u>	<u>1979</u>	<u>1978</u>
Statutory Federal tax rate	46.0%	46.0%	48.0%
Increase (decrease) in tax rate resulting from:			
Foreign taxes in excess of Federal tax rate	3.9	6.2	1.3
State and local income taxes (net of Federal tax benefit)	1.4	2.1	2.0
Net capital gains and losses	(0.3)	(1.6)	(1.5)
Percentage depletion on natural resource properties	(1.5)	(1.4)	(1.5)
Investment tax credits	(6.1)	(5.3)	(3.6)
Other	(1.0)	(.1)	2.2
Effective tax rate	<u>42.4%</u>	<u>45.9%</u>	<u>46.9%</u>

Daylin, Inc., a subsidiary of the Company, has net operating loss carryforwards of approximately \$19 at December 31, 1980 which expire as follows: 1983—\$3 and 1984—\$16. At the time of the purchase of Daylin, Inc., the estimated tax effect of such carryforwards was recorded as an asset.

The Internal Revenue Service has completed examinations of consolidated Federal income tax returns of the Company and its domestic subsidiaries through 1973. Additional foreign and United States taxes might become payable if undistributed earnings of foreign subsidiaries were to be paid as dividends, but such taxes, if any, have not been fully provided since a substantial portion of such earnings has been or will be reinvested for an indefinite period of time.

Note 14—Pension, Profit Sharing and Related Plans

Grace has pension plans covering employees of certain operating units who meet age and service requirements. The total domestic and foreign expenses for such pension plans are as follows:

	1980	1979	1978
Domestic	\$ 23.9	\$ 22.4	\$ 19.5
Foreign	10.6	8.7	6.5
	<u>\$ 34.5</u>	<u>\$ 31.1</u>	<u>\$ 26.0</u>

Grace funds its pension plans based on a percentage of payroll expense or cost per hour of service, as determined by independent actuaries. Such contributions are equal to amounts charged for pension expense.

A comparison of accumulated plan benefits and net assets available for benefits for Grace's domestic pension plans is presented below:

	December 31,	1980	1979
Actuarial present value of accumulated plan benefits:			
Vested		\$ 182.3	\$ 158.1
Non-vested		15.5	16.8
Total accumulated benefits		<u>\$ 197.8</u>	<u>\$ 174.9</u>
Net assets available for plan benefits		<u>\$ 282.4</u>	<u>\$ 230.4</u>

Domestic pension plan benefit improvements resulted in cost increases of approximately \$.2 in 1980 over 1979 and \$2.2 in 1979 over 1978. Changes in actuarial assumptions decreased cost by \$1.1 in 1980 and had no effect in 1979. The weighted average assumed rate of return used by the actuaries in determining the actuarial present value of accumulated plan benefits was 6.4% in 1980 and 1979.

The assets of pension funds exceeded the actuarially computed value of vested benefits for Grace's foreign pension plans.

Grace also sponsors profit sharing, savings and investment and related plans. The total expense for these plans was as follows:

	1980	1979	1978
Domestic	\$ 8.8	\$ 9.3	\$ 6.9
Foreign . . . . .	.1	.1	.1
	<u>\$ 8.9</u>	<u>\$ 9.4</u>	<u>\$ 7.0</u>

Note 15—Financial Data Adjusted for the Effects of Changing Prices (FAS No. 33)

The unaudited financial data adjusted for the effects of changing prices are on page 46.

Note 16—Industry and Geographic Segments

The following table sets forth industry and geographic segment information in accordance with the reporting requirements of Statement of Financial Accounting Standards No. 14. The format of this table differs from the unaudited tables on pages 31 and 33, in that operating profit herein is presented before taxes and after gains (losses) on disposal of businesses and foreign currency translation related to FAS No. 8. In addition, sales and pretax operating profits (losses) of units disposed of and units for which provision for loss on future disposal has been recorded are included herein in the applicable industry segments rather than being shown separately.

Grace's investment in and equity in the results of operations of affiliated companies, income applicable to minority shareholders, intersegment sales and transfers among geographic areas are not significant.

Industry Segment Information

	Chemical			Natural Resources	Consumer			Total
	Specialty	Chemed	Agricultural		Specialty Retailing	Restaurant	Other	
Sales								
1978	\$1,521	\$297	\$549	\$ 341	\$ 485	\$242	\$1,039	\$4,474
1979	1,684	322	683	485	891	320	913	5,298
1980	1,896	363	801	690	1,086	525	740	6,101
Pretax Operating Profit (Loss) ⁽¹⁾								
1978	\$ 203	\$ 63	\$ 37	\$ 66	\$ 32	\$ 18	\$ 40	\$ 459
1979	244	41	49	178	42	6	24	584
1980	257	43	126	220	53	(15)	3	687
Identifiable Assets ⁽²⁾								
1978	\$ 839	\$145	\$470	\$ 514	\$ 238	\$137	\$ 623	\$2,966
1979	1,004	161	476	698	479	248	396	3,462
1980	1,097	200	491	1,083	576	391	318	4,156
Capital Expenditures ⁽²⁾								
1978	\$ 86	\$ 7	\$ 18	\$ 94	\$ 34	\$ 46	\$ 22	\$ 307
1979	108	11	18	165	67	122	19	510
1980	134	10	27	321	64	89	10	655
Depreciation, Depletion and Lease Amortization ⁽²⁾								
1978	\$ 47	\$ 3	\$ 27	\$ 53	\$ 7	\$ 9	\$ 14	\$ 160
1979	48	3	28	51	14	13	11	168
1980	53	4	28	63	19	26	9	202

Geographic Segment Information

	United States	Canada	Europe	Other	Total
Sales					
1978	\$3,054	\$ 72	\$1,073	\$275	\$4,474
1979	3,721	84	1,140	353	5,298
1980	4,531	102	1,077	391	6,101
Pretax Operating Profit ⁽¹⁾					
1978	\$ 283	\$ 9	\$ 94	\$ 73	\$ 459
1979	331	42	102	109	584
1980	414	19	130	124	687
Identifiable Assets ⁽²⁾					
1978	\$2,067	\$ 51	\$ 629	\$219	\$2,966
1979	2,605	51	551	255	3,462
1980	3,316	58	542	240	4,156

⁽¹⁾Total pretax operating profit reconciles to income before taxes as follows:

	1980	1979	1978
Pretax operating profit	\$687	\$584	\$459
General corporate overhead*	(66)	(55)	(44)
Interest expense	(129)	(106)	(84)
Income before taxes	<u>\$492</u>	<u>\$423</u>	<u>\$331</u>

*General corporate overhead includes other items such as dividend and interest income and miscellaneous items not properly allocable to industry segments.

⁽²⁾The difference between these amounts and the corresponding amounts in the consolidated financial statements represents general corporate items.

To the Shareholders and Board of Directors of W.R. Grace & Co.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, shareholders' equity and changes in financial position present fairly the financial position of W.R. Grace & Co. and subsidiary companies at December 31, 1980 and 1979, and the results of their operations and the changes in their financial position for each of the three years in the period ended December 31, 1980, in conformity with generally accepted accounting principles consistently applied. Our examinations of these statements were made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

Price Waterhouse & Co.

February 5, 1981

**Management's Responsibility for
Financial Reporting**

Management is responsible for the preparation as well as the integrity and objectivity of the Company's financial statements. The financial statements have been prepared in conformity with generally accepted accounting principles and necessarily include amounts which represent the best estimates and judgments of management.

For many years, management has maintained internal systems which include careful selection of personnel, segregation of duties, formal business, accounting and reporting policies and procedures and an extensive internal audit function to assist it in fulfilling its responsibilities for financial reporting. While no system can ensure elimination of errors and irregularities, the systems have been designed to provide reasonable assurance that assets are safeguarded, policies and procedures are followed and transactions are properly executed and reported. These systems are constantly reviewed and modified in response to changing conditions.

The Audit Committee of the Board of Directors, which is comprised of directors who are not officers or employees of W.R. Grace & Co. or its subsidiaries, meets with senior financial officers, the internal auditors and independent accountants and reviews audit plans and results as well as management's actions taken in discharging its responsibilities for accounting, financial reporting and internal control systems. The Committee reports its findings to the Board of Directors and also recommends the selection and engagement of independent accountants. Management, the internal auditors and independent accountants have direct and confidential access to the Committee.

Independent accountants are engaged to conduct an examination of and render an opinion on the financial statements in accordance with generally accepted auditing standards. These standards include a review of the systems of internal controls and tests of transactions to the extent considered necessary by them to support their opinion.

Management's Discussion and Analysis of Results of Operations and Financial Condition

Grace's financial statements are expressed in U.S. dollars and reflect the worldwide operations of the Grace businesses conducted in many currencies.

Results of Operations 1980 vs. 1979

Record sales of \$6.1 billion were achieved in 1980, an increase of 15% over 1979 sales of \$5.3 billion which have been restated for poolings of interests transactions. Excluding sales of units which were divested or planned to be divested, the rate of growth was 21%. All lines of business contributed to the sales increase, with significant increases recorded in Agricultural Chemical, Natural Resources, Specialty Retailing and Restaurant operations. Agricultural Chemical sales increased 19% over 1979 primarily as a result of higher selling prices for nitrogen and phosphate fertilizers, strong overseas demand and higher world market prices for converted phosphate products. Sales from Natural Resources operations increased by 42% in 1980 largely due to higher realized prices for oil and natural gas, increased domestic production rates, a greater number of contract drilling rigs in operation and expansion of other oil field services. Higher sales of Specialty Retailing operations reflect increased volume attributable in large part to store expansions. Restaurant sales increased 64% and reflect primarily the acquisition of Jojo's Restaurants, Inc.

Cost of goods sold and operating expenses increased 13½%, which was lower than the rate of growth in sales, reflecting the effects of increased sales from Natural Resources operations which operate at higher margins, improved margins in the Agricultural Chemical business and disposal of several lower margin businesses. The increase of 19% in selling, general and administrative expenses over 1979 results primarily from the growth in sales and the costs associated with the expansion of Specialty Retailing and Restaurant operations.

Dividends, interest and other income increased 38% primarily due to the inclusion in 1980 of a \$16.1 million gain arising from Grace's contribution of certain phosphate rock reserves to a new joint venture mining operation, as more fully described in Note 5 of the Notes to Financial Statements.

Depreciation, depletion and lease amortization increased 20% over 1979, reflecting higher levels of capital expenditures in recent years for expansion.

Interest expense of \$128.8 million increased 21% over 1979, and is attributable to higher average borrowings and higher interest rates, partially offset by the effect of the prospective adoption in 1980 of Statement of Financial Accounting Standards No. 34, "Capitalization of Interest Cost".

Net foreign exchange gains in 1980 amounted to \$11.2 million compared to \$5.3 million net foreign exchange losses in 1979. These gains and losses were partially offset, however, by translation effects relating to FAS No. 8 which resulted in a \$7.4 million increase and a \$3.1 million decrease in cost of goods sold and operating expenses in 1980 and 1979, respectively.

Net losses on disposal of businesses in 1980 were \$13.9 million, as compared to gains of \$12.8 million in 1979. An analysis of these gains and losses is presented in Note 12 of the Notes to Financial Statements.

The increase in income taxes in 1980 was principally due to a higher level of earnings. This was partially offset by a lower effective tax rate resulting primarily from the gain on Grace's contribution of phosphate rock reserves to a new joint venture mining operation and an increased amount of investment tax credits.

1979 vs. 1978

Sales of \$5.3 billion were achieved in 1979, an increase of 18% over 1978 sales of \$4.5 billion which have been restated for poolings of interests transactions. Excluding sales of units which were divested or planned to be divested, the rate of growth was 28%. All lines of business contributed to the sales increase, in particular, Specialty Retailing sales advanced 90% primarily due to the acquisition of Daylin, Inc. in 1979. Additionally, in the Natural Resources area, 1979 sales grew to \$485 million, an increase of 42% which was greatly attributable to escalating prices for oil and gas as well as continued strength in the service-related businesses of Grace's Natural Resources operations.

Cost of goods sold and operating expenses increased 16%, which was lower than the rate of sales growth, reflecting the effects of improved margins in the Natural Resources line of business and disposal of lower margin businesses. Rapid expansion and resultant preopening expenses in the Restaurant and Specialty Retailing areas, coupled with continued inflation affecting all lines of business, contributed to the 27% increment in selling, general and administrative expenses.

Dividends, interest and other income amounted to \$41.9 million in 1979, an increase of 90%. The primary factors causing this increase were higher interest rates, interest bearing deposits and gains on sales of securities and properties. Equity in earnings of partnerships and less than majority owned companies decreased by \$8.0 million in 1979. Contributing to this decrease was the divestment in 1979 of Grace's interest in Voyager Petroleum Ltd. and in 1978 nonrecurring gains on certain mining ventures.

Interest expense of \$106.4 million was 27% greater than 1978 due to both higher interest rates and larger average borrowings in 1979. The 1979 increase in research and development expenses is analyzed by functional expenditure category in the Financial and Statistical Review on page 37.

Net foreign exchange losses in 1979 amounted to \$5.3 million compared to \$13.8 million in 1978. This favorable variance was caused, in part, by the lower decline in the value of the U.S. dollar versus other currencies than that experienced in 1978. Net foreign exchange losses in 1979 and 1978 were partly offset by favorable translation effects relating to FAS No. 8 of \$3.1 and \$11.7 million, respectively, included in cost of goods sold and operating expenses.

Net gains on disposal of businesses were \$12.8 million in 1979 versus \$8.0 million in 1978. An analysis of these gains by line of business is contained in Note 12 of the Notes to Financial Statements.

Financial Condition

For 1980 net funds required before investment and financing activities were \$152.9 million in excess of internally generated funds compared with \$231.4 million required in 1979 and \$192.5 million required in 1978. The 1980 deficiency was financed by a net increase in total long term debt of \$228.7 million comprised primarily of commercial paper borrowings, production payment indebtedness and \$100 million in medium term 12½% notes which the Company sold in September, 1980.

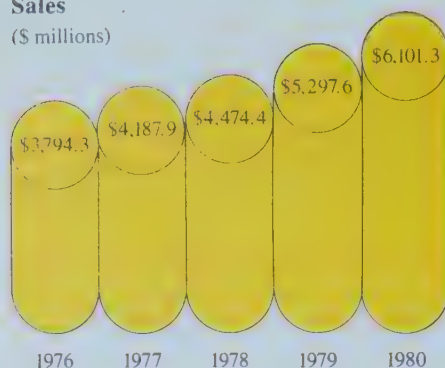
The principal reason for the net funds requirement was capital expenditures providing additional capacity for future growth. The Company continues to be in a strong financial position. Long term debt as a percent of total capital was 35.2% in 1980, which is higher than the 30.9% level in 1979; it is within the Company's planned range for the long term debt to equity position. The Company had unused lines of credit of \$498.9 million at December 31, 1980 including \$400 million under a revolving credit agreement with major banks, and substantial additional borrowing capacity on the terms of the Company's senior debt loan agreements. The present level of indebtedness, combined with the equity and credit resources that are available, places the Company in a position to finance a continuation of the growth experienced in recent years.

Capital expenditures increased significantly in 1980 to \$657.4 million compared to \$511.2 million and \$308.5 million in 1979 and 1978, respectively. An analysis of capital expenditures by line of business is shown in the Financial and Statistical Review on page 34. Major capital expenditure projects in 1980 included: construction of specialty chemical plants; purchase, exploration and development of coal, oil and natural gas producing properties; purchase of new drilling rigs; and specialty retailing and restaurant expansion programs. The Company expects that capital expenditures in 1981 will be approximately \$700 million, an increase over the 1980 level to support expansions in the Specialty Chemical and Agricultural Chemical businesses.

Information on the effects of changing prices prepared in accordance with the guidelines provided by the Financial Accounting Standards Board, illustrating the effects of both general inflation and the changes in specific costs, is presented in Note 15 of the Notes to Financial Statements.

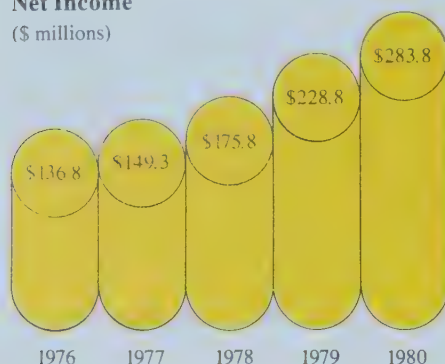
Sales

(\$ millions)

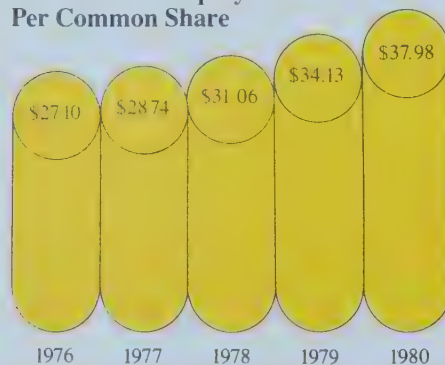


Net Income

(\$ millions)

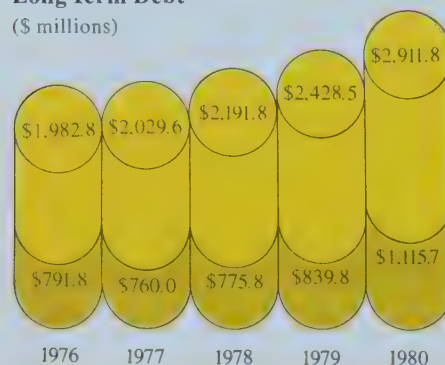


Shareholders' Equity Per Common Share



Total Capital Including Long Term Debt

(\$ millions)



Financial Summary—1970 to 1980* (dollar amounts in millions except per share)

1980

Earnings Statistics

Sales	\$6,101.3
Other income	57.2
Cost of goods sold and operating expenses	3,962.4
Interest expense	128.8
Net gains (losses) on disposal of businesses	(13.9)
Depreciation, depletion and lease amortization	204.0
Income before taxes and extraordinary items	492.4
Income taxes	208.6
Income before extraordinary items	283.8
Extraordinary items	—
Net income	283.8

Financial Position

Cash and marketable securities	\$ 124.9
Notes and accounts receivable—less allowances	743.5
Inventories	812.5
Total current liabilities	1,135.0
Working capital	584.4
Properties and equipment—net	2,162.7
Total assets	4,364.5
Long term debt	1,115.7
Shareholders' equity—common stock	1,787.3

Data per Common Share

Earnings per common share:	
Income before extraordinary items	\$ 6.08
Extraordinary items	—
Net income	6.08
Earnings per share assuming full dilution:	
Income before extraordinary items	5.91
Net income	5.91
Weighted average number of shares (thousands) used in computing:	
Earnings per share	46,579
Earnings per share assuming full dilution	48,234
Cash dividends per common share paid by the Company	2.175
Shareholders' equity per common share	37.98

Other Statistics

Working capital provided by operations	\$ 562.7
Cash dividends on common stock paid by the Company	101.1
Capital expenditures	657.4
Current ratio	1.5:1
Debt ratio (including capitalized leases)	38.3%
Debt ratio (excluding capitalized leases)	33.7%
Common shareholders of record	44,629
Employees	91,700

* Data for the years 1976 through 1979 have been reclassified, and restated to include businesses combined in poolings of interests transactions in accordance with a policy of restatement of data for the four immediately preceding years. Amounts previously reported in 1979 are shown in the table to the right.

1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
\$5,297.6	\$4,474.4	\$4,187.9	\$3,794.3	\$3,721.6	\$3,601.5	\$2,889.8	\$2,397.6	\$2,105.0	\$1,973.7
43.3	31.5	19.7	18.0	21.3	25.9	25.7	19.6	19.7	20.8
3,492.6	3,006.1	2,863.9	2,623.7	2,538.3	2,511.7	2,046.0	1,694.9	1,506.7	1,399.6
106.4	83.6	79.5	73.2	83.0	78.8	58.4	42.7	42.8	41.9
12.8	8.0	(17.2)	.8	26.4	(17.3)	(4.4)	—	—	—
169.5	161.5	144.3	126.5	105.6	88.6	73.0	64.2	60.3	58.3
423.0	331.1	278.7	261.4	324.6	255.7	161.9	112.9	85.5	85.8
194.2	155.3	129.4	124.6	147.1	131.0	77.3	49.8	43.4	36.3
228.8	175.8	149.3	136.8	177.5	124.7	84.6	63.1	42.1	49.5
—	—	—	—	—	—	(6.2)	3.2	(6.2)	(30.9)
228.8	175.8	149.3	136.8	177.5	124.7	78.4	66.3	35.9	18.6

\$ 157.2	\$ 266.2	\$ 194.1	\$ 246.8	\$ 111.3	\$ 168.2	\$ 139.0	\$ 144.0	\$ 105.9	\$ 83.8
737.5	634.0	568.4	517.7	497.5	521.8	438.1	384.1	341.5	329.7
769.5	712.8	636.7	611.5	576.4	667.1	493.2	419.4	382.8	356.7
1,072.2	896.8	812.5	767.3	737.9	860.6	628.3	522.1	432.0	442.3
626.5	738.5	615.9	627.2	584.9	532.0	467.1	446.8	418.0	348.5
1,689.9	1,321.2	1,225.8	1,139.8	1,069.7	959.9	770.7	664.8	608.9	576.4
3,738.9	3,300.6	3,016.0	2,906.8	2,693.3	2,631.6	2,115.0	1,808.9	1,644.5	1,612.8
839.8	775.8	760.0	791.8	683.9	721.5	633.6	520.1	526.7	407.6
1,579.8	1,407.1	1,260.7	1,181.7	1,101.7	858.7	766.0	730.0	671.3	661.9

\$ 5.01	\$ 3.97	\$ 3.40	\$ 3.12	\$ 4.63	\$ 3.51	\$ 2.56	\$ 1.92	\$ 1.40	\$ 1.72
—	—	—	—	—	—	(.19)	.10	(.21)	(1.08)
5.01	3.97	3.40	3.12	4.63	3.51	2.37	2.02	1.19	.64
4.79	3.72	3.19	2.93	4.25	3.23	2.38	1.82	1.39	1.70
4.79	3.72	3.19	2.93	4.25	3.23	2.21	1.90	1.19	.69
45,530	44,076	43,688	43,588	38,182	35,364	32,788	32,450	29,819	28,537
48,235	48,272	48,166	48,155	42,811	40,029	37,455	37,130	31,466	30,489
1.975	1.85	1.775	1.70	1.625	1.525	1.50	1.50	1.50	1.50
34.13	31.06	28.74	27.10	26.04	24.13	23.16	22.69	22.49	22.92

\$ 419.6	\$ 355.5	\$ 338.2	\$ 282.7	\$ 295.8	\$ 259.8	\$ 186.6	\$ 139.8	\$ 121.8	\$ 117.4
85.4	71.4	65.9	60.9	50.7	45.4	41.9	38.3	34.9	32.2
511.2	308.5	278.5	234.4	308.7	302.7	174.3	135.3	98.1	104.7
1.6:1	1.8:1	1.8:1	1.8:1	1.8:1	1.6:1	1.8:1	1.9:1	2.0:1	1.8:1
34.6%	35.4%	37.5%	39.9%	38.1%	45.4%	45.0%	—	—	—
30.2%	32.4%	34.4%	37.3%	35.1%	42.6%	42.5%	41.3%	43.6%	37.7%
47,640	48,500	57,570	59,028	59,143	56,357	52,071	49,423	47,644	49,646
82,600	68,900	69,000	64,000	65,300	79,100	75,700	73,900	66,900	63,900

	1979	1978	1977	1976
Sales	\$5,266.6	\$4,448.2	\$4,168.0	\$3,779.3
Net income	222.6	171.2	146.0	134.6
Earnings per share	5.02	3.98	3.43	3.17

Corporate Information

World Headquarters	Grace Plaza 1114 Avenue of the Americas New York, New York 10036 Telephone: (212) 764-5555	Independent Accountants	Price Waterhouse & Co. 153 East 53rd Street New York, New York 10022 (212) 371-2000
Annual Meeting	The annual meeting of shareholders of W. R. Grace & Co. will be held at 10:30 a.m. on Monday, May 11, 1981 at The Ritz-Carlton 160 East Pearson Street at Water Tower Place Chicago, Illinois 60611	Dividend Reinvestment Agent	Citibank, N.A. Sort 3197 New York, New York 10043 (212) 558-5757
Incorporation	W. R. Grace & Co. was incorporated in 1899 under the laws of the State of Connecticut. The Company was founded in 1854 by William Russell Grace.	Trademarks	Names <i>italicized</i> in the text of this report are trademarks or service-marks of W.R. Grace & Co. or its subsidiaries, or, in some cases, indicate Grace operating units.
Shareholder Inquiries	May be directed to Company Headquarters by calling a special toll-free number: (800) 223-7900. Residents of Alaska, Hawaii and New York may call collect.	SEC Reports	The Annual Report on Form 10-K and the Quarterly Reports on Form 10-Q as filed by the Company with the Securities and Exchange Commission are available to any Grace shareholder upon request. Write: James G. Stier, Director of Investor and Shareholder Relations, W. R. Grace & Co., Grace Plaza, 1114 Avenue of the Americas, New York, New York 10036

Investor Information

Securities	Stock Exchanges		Transfer Agent	Registrar
Common Stock	Listings:	Geneva	Marine Midland Bank	Marine Midland Bank
	New York	Hamburg	140 Broadway	140 Broadway
	Amsterdam	Lausanne	New York, New York 10015	New York, New York 10015
	Basel	London	(212) 440-1000	
	Frankfurt	Paris		
Midwest	Zürich			
	Trading Privileges:			
	Boston	Pacific		
	Cincinnati	Philadelphia		
Put and Call Options	American Stock Exchange			
Preferred Stocks	Over-the-Counter		Marine Midland Bank 140 Broadway New York, New York 10015	Chemical Bank 55 Water Street New York, New York 10041
Debentures /Notes			Trustees	Conversion Prices
4¼% Convertible Subordinate Debentures Due 1990	New York Stock Exchange		Chemical Bank 55 Water Street New York, New York 10041 (212) 952-3881	\$57.32
6½% Convertible Subordinate Debentures Due 1996	New York Stock Exchange		The Chase Manhattan Bank, N.A. 1 New York Plaza New York, New York 10081 (212) 676-4075	\$29.625
12½% Notes Due 1990	New York Stock Exchange		Bankers Trust Company 1 Bankers Trust Plaza New York, New York 10006 (212) 775-2500	Not Convertible

Corporate Officers

Chairman

Felix E. Larkin

President and Chief Executive Officer

J. Peter Grace

Vice Chairman and Chief Operating Officer

George W. Blackwood

Executive Vice Presidents and Sector Executives

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Charles H. Erhart, Jr.

Carl N. Graf

D. Walter Robbins, Jr.

Executive Vice Presidents

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Lloyd L. Jaquier, *Agricultural Chemicals*

Harold R. Logan, *Natural Resources*

Jack Rimmer, *Industrial Chemicals*

John F. Spellman, *Chief Financial Officer*

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Charles E. Brookes, *Industrial Chemicals Sector*

Robert A. Clabault, *General Industrial Products*

Thomas M. Doyle, *Assistant to the President*

Albert A. Eustis, *General Counsel and Secretary*

Donald E. Grimm, *Natural Resources*

Leonard Kamsky, *Business Economics*

Lawrence C. McQuade, *Corporate Administration*

Anwar S. Soliman, *Restaurant*

George J. Winchell, *Sector Financial Officer*

Vice Presidents—Operations

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James A. Doyle, *Agricultural Chemicals*

Charles H. Ehlers, *Dewey and Almy Chemical*

Adley W. Hemphill, *Davison Chemical*

John Hirsch, *Natural Resources*

Carl W. Lorentzen, *Organic Chemicals*

Robert A. Miller, *Cryovac*

Roger V. Rowe, *Cocoa Products*

Robert W. Samuels, *Polyfibron*

Richard G. Shapiro, *Apparel*

John L. Sisk, *Retail*

Edward H. Tutun, *Retail*

Laurence R. Veator, Jr., *Pacific-Interamerican*

Rodney M. Vining, *Construction Products*

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Henry C. Conrad, *Business Development*

Francis D. Flanagan, *Washington Office*

Kenneth G. Gilkey, *Controller*

O. Benjamin Hander, *General Development*

Robert E. Herlihy, *Computer Technology and Operations*

Christian F. Horn, *International Development*

Robert J. Kunze, *Administrative Controls and Planning*

Antonio Navarro, *Corporate Communications*

Klaus G. Scheye, *Management Services*

Leonard V. Triggiani, *Research and Development*

Chemed Corporation

Chairman of the Board

J. Peter Grace

President and Chief Executive Officer

Edward L. Hutton

Grace Industrial Chemicals, Inc.—Division Presidents

Joseph B. Finders, *European Chemicals*

Jean-Louis Grèze, *European Darex*

Fred Lempereur, *European Technical Products*

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